Journal *of* Research *in* Music Education

A Publication of the

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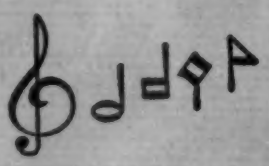
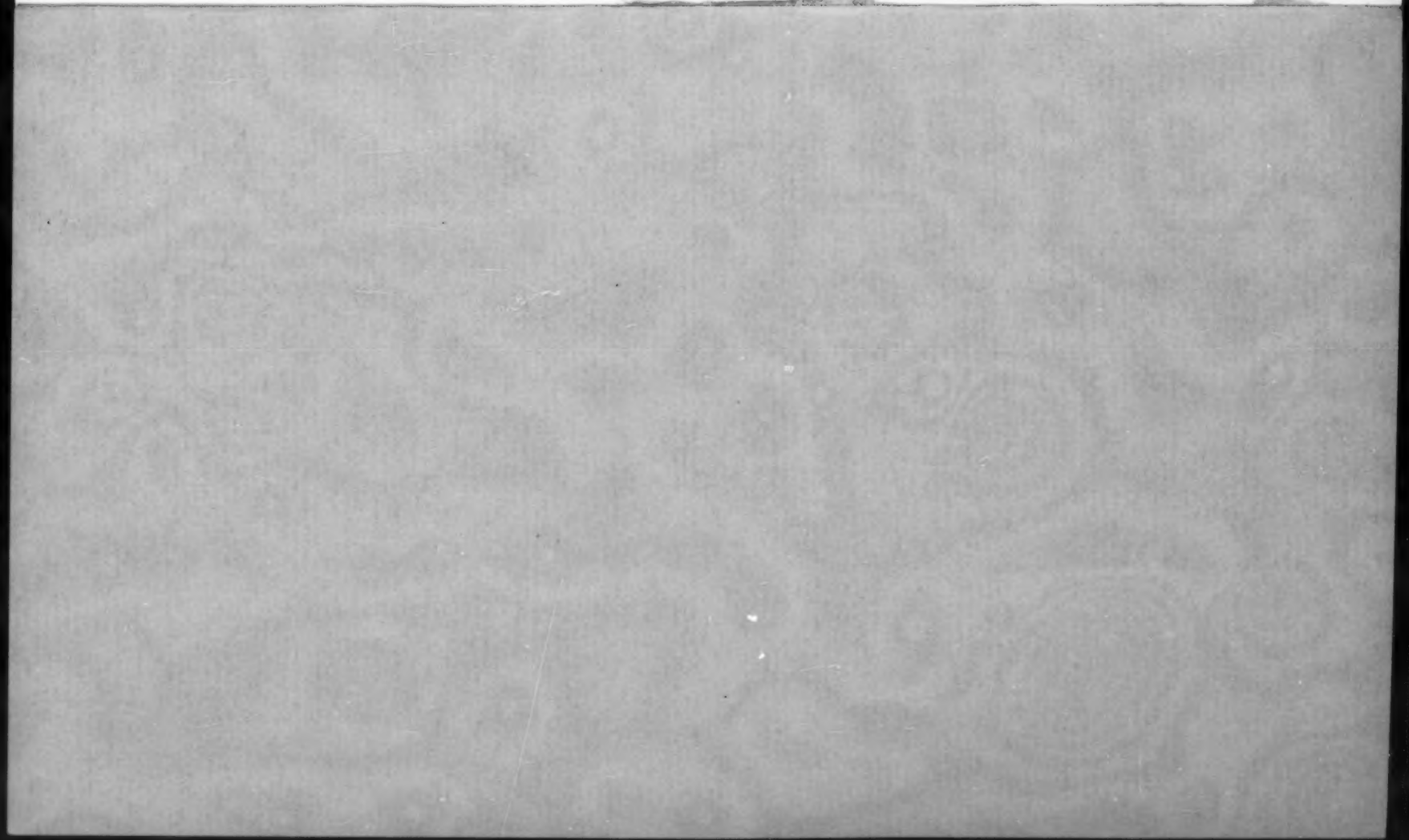


Volume I FALL 1953 *Number 2*



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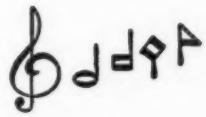

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Journal of Research in Music Education

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The Development of a College Entrance Test in Music Achievement

JAMES ALIFERIS and J. E. STECKLEIN

AN ADEQUATE testing program should provide valuable information pertinent to the accurate appraisal of musical talent and to the successful counseling and guidance of music students. Such a program should be of particular value in counseling the music student who is about to enter into the academic preparation required for his chosen career. The development of the *Aliferis Freshman Test in Music Achievement* represents an attempt to illuminate another facet of the complex of abilities constituting "musical talent" and to provide counselors with a standardized instrument for its measurement.

Test Development

The *Aliferis Freshman Test* measures auditory-visual discrimination of melodic, harmonic, and rhythmic elements and idioms. It is intended for use in the evaluation of this capacity of music majors at the college entrance level. The test provides a measure of achievement in which the student selects from musical notation items he hears played on the piano. This type of auditory-visual experience is commonplace in the every-day world of practicing musicians and is also an important part of the training given in basic musicianship required of all music majors in college. The critical association of auditory-visual stimuli, executed with the aid of whatever kinesthetic and motor imagery is in play, represents the musician's ability to correlate sound with notation and notation with sound and is used by musicians in every phase of musical experience including composition, conducting, and pedagogy. Manifestations of the musician's eye-ear sensory functions are evidenced in the ability of fine musicians to "hear with the eyes" and to "see with the ears."

The original test material was gathered from freshman theory and harmony textbooks and by consultation with music instructors. These materials were then categorized in accordance with the three organizing forces of music—melody, harmony, and rhythm. Examination of the materials showed manifold musical variation but an absence of the psychological objectivity desirable for test item construction. Since the optimum result would be a test with recognizable musical items satisfying psychological requirements, it was not possible simply to extract test items from prevailing art materials. Conversely, satisfaction of psychological controls could not be achieved at the expense of the musical content necessary for the interested participation of the musician taking the test.

The problem of psychological controls was attacked by application of the theory of specifics, so that each item of the test might have one, and only one, critical problem regarding which the subject would make a decision. The establishment of such control would

enable reference to the subject's decision on each specific problem. The application of this principle throughout a section of homogeneous test material would make possible the study of the subject's reactions to various subject areas. Thus, building a test which would yield specific detailed information from homogeneous material would make possible the comparative appraisal of subject areas as well as the examination of individual items. Such a test then could be used for (1) comparative evaluation of achievement by reference to the subject areas, (2) more accurate diagnosis by reference to specific items in a section of the test, and (3) prognostication based on coordination of this test information with other measurement results.

The musical content *versus* psychological controls problem was finally solved by dividing each of the organizing forces of music (melody, harmony, and rhythm) into two parts—elements and idioms. The *element* became the smallest possible musical unit which could be recognized out of context. All secondary factors were eliminated so that judgment could be rendered on only one musical problem—recognition of the element. The *idiom* presented each of the elements in a simple context created by enlarging the configuration of the one problem contained in the element. Thus, the idiom represented a test item which approached the art form and brought the test closer to every-day musical experience without changing the psychological controls which were established in the element.

At this point, the end of the first stage of the test development, the point of attack had been established, methods had been defined, and the form of the material had been determined. The test was to measure auditory-visual discrimination of melodic, harmonic, and rhythmic elements and idioms.

Another problem encountered during the development of the test involved the selection of the most appropriate instrument or instruments for the presentation of the test items. Use of the piano was debated in terms of musical ideals as well as in terms of psychological measurements, particularly as to its possible maximum suitability for presentation of the harmony test. For this section of the test, it was desirable to have an instrument which would sustain all four voices of a chord with equal intensity as well as uniform quality throughout a period of several beats. Laboratory reports showed, however, that piano tone fluctuated widely, in quality and in intensity, and rapidly became inaudible. Furthermore, experience has shown that musicians will, in piano performance, unconsciously favor the soprano voice of one chord or the bass voice of another. In an attempt to circumvent the mechanical and human shortcomings associated with the piano, the organ was considered for possible use. Recordings made on an electric organ, on a pipe organ, and on a small harmonium were tested. However, although both musical and psychological specifications were satisfied, the organ proved unacceptable because its tone, in the test situation, was sufficiently unfamiliar to the average entering freshman as to become a serious distractor to the test problem. To avoid the distraction due to unfamiliarity with the tonal sound, the violin, clarinet, and French horn were used to record the melody and rhythm tests. Although these instruments were able to produce sustained tones with fine intonation as well as excellent dynamic gradation, no one instrument could play through the pitch range of a complete test section. Mixing the in-

struments on one test resulted in serious distraction due to change of timbre. In compromise, therefore, the instrument finally chosen was the piano. Its general use by musicians and general acceptance as the representative instrument of the complete tonal realm were thought to compensate for its musical and psychological inadequacies.

A third problem was whether to present one auditory stimulus which would be identified from multiple visual images, or several auditory stimuli to be judged against one visual image. Since the test was intended for incoming freshmen, the testing situation which presented for recognition only one auditory stimulus and which, consequently, did not emphasize retention or memory, was selected for use. The use of multiple-choice answers eliminated identification in terms of nomenclature and terminology which would have presented a serious stumbling block for the untutored, incoming freshman. The elimination of technical terms restricted the test to measurement of ear-eye identification (auditory-visual discrimination).

Other test characteristics were: the pitch range of each item was limited to that pitch region which is known to present the least difficulty for hearing; each test section included the use of all single accidentals—natural, sharp, and flat—but no double accidentals.

From the musician's point of view, the *Alijeris Freshman Test* contains recognizable musical items which are presented from the piano so as to offer a legitimate musical experience; from the psychologist's point of view, the test makes possible comparable evaluation of achievement as shown in the total score, and diagnosis of strengths and weaknesses as shown in the section scores of melody, harmony, and rhythm.

The Nature of the Test Items

Melodic Elements

The first test of melodic elements uses all the melodic intervals from minor second through the octave. The intervals are played in the following manner:

In the test book the student sees

from which he makes his selection. Observe in the above illustration that

(1) rhythm and harmony are not present, but that duration and speed of presentation are controlled, as is the time space between items;

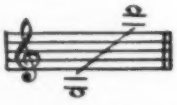
(2) the only judgment involved is the recognition of the smallest possible melodic entity—a melodic interval as defined by two consecutive tones;

(3) the student does not have to name the interval (major 3rd, perfect 5th, etc.), he merely indicates his choice—a, b, c, or d—by marking on the answer sheet;

(4) the first note that the subject hears is D and the first note of each of the printed intervals is also D—this creates a "point of contact" which eliminates the need for judgment involving absolute pitch.

Some aspects of the evolution of the melodic elements test are worth mentioning. Since nothing was known as to the effect that interval direction had on difficulty of recognition, in the first edition each interval was given four times, twice ascending and twice descending. Then, by examining the discrimination power of each interval in relation to its direction, it was possible to select the more discriminating direc-

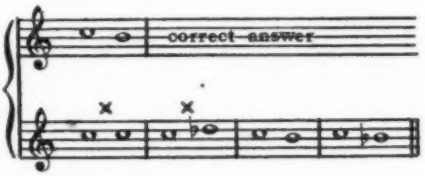
tion of each interval.[1] The validity of this procedure was reinforced by the fact that all intervals were given in the same pitch range:



Holding all variables constant, the effect of direction on recognition was found to be as follows: intervals which were more discriminating when ascending included the diminished fifth-augmented fourth, perfect fourth, major sixth, major and minor seventh, major third, major and minor second; intervals which were more discriminating when descending included the minor sixth, octave, minor third, and perfect fifth.

Examination also showed that intervals varied greatly as to their power of discrimination and that extension of the pitch range (up or down) of the poorly discriminating intervals increased their powers of discrimination. Thus the seconds, which were negatively discriminating on the first test, were gradually lowered or raised in pitch until they showed acceptable positive discriminating power. In this manner each interval derived a different place in the pitch range according to its power of discrimination.[2]

In an early form of the test, distractors (wrong answers) were used which were in the opposite direction to the correct answer, for example:



However, whenever these were used, negative discrimination resulted. Even though students could not identify the right interval, they could recognize the right direction and whether or not it was stationary.

Melodic Idioms

Melodic idioms were constructed by placing the melodic element (critical interval) in a simple context which preserved all the controls of the element. In the melodic idiom, four factors were found to be in constant flux: stepwise *versus* skipwise movement, and ascending *versus* descending. To organize and control these forces, several procedures were evolved. If the critical interval was stepwise, it was approached skipwise from the opposite direction, and if the critical interval was skipwise, it was approached stepwise from the opposite direction.[3]

The melodic idiom is presented as shown in the first example on the following page. In the test book the student makes his selection from the notation shown in the second example by indicating his choice a, b, c, or d, on the answer sheet.

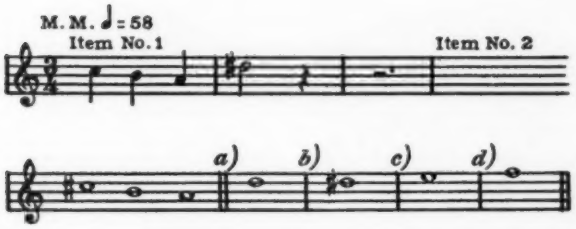
Observe that

(1) the point of contact consists of the first three notes and therefore includes the

[1]The discrimination index of a test item reflects how well the item discriminates between the best and the poorest students. For example, an item having high discrimination power would be answered right by a majority of the best and some of the poorer students. An item has low discrimination power when an approximately equal number of the good and poor students identify the right answer. Lastly, an item is negatively discriminating when more of the poor, rather than best students, identify the right answer. An item is usually considered good when it has a high positive discrimination; which means that almost all of the best students answered it correctly and that some of the poor students also were able to answer it correctly.

[2]It should be mentioned that the unison finally had to be excluded as it remained negatively discriminating even after the pitch range had been extended to the limits of the keyboard.

[3]After these patterns were established it was interesting and somewhat amusing to discover that they were similar if not identical to the rules of 16th century counterpoint.



first note of the critical interval which is between the 3rd and 4th notes;

(2) the answer, being the second note of the critical interval and the fourth note of the group, does not appear among the first three notes which are given.

Harmonic Elements

Harmonic elements employ four-voiced arrangements of major and minor chords which are used in all positions of the soprano (1, 3, and 5) and bass (root position, first and second inversions), and the first inversion of the diminished triad. The student hears the chord played as follows:

and makes his selection from

by indicating a, b, c, or d on the answer sheet.

Notice that

(1) the soprano of the chord that is played and the soprano of each of the written chords is the same, thereby creating the point of contact;

(2) although melody and rhythm are not present, duration of item and speed of administration are controlled;

(3) the alto, tenor, and bass voices vary in the test book so that they have to be appraised against the one voice of the harmony which is constant, visually as well as aurally;

(4) the soprano is the only voice which remains stable—the student is forced to move down, from the soprano through the alto, tenor, and bass voices, in order to make his decision.

Harmonic Idioms

The harmonic idiom test combines three harmonic elements in a chord sentence displaying all the controls which were established in the test of harmonic elements. Each of the chord sentences is a recognizable harmonic idiom, as, for example, the Neapolitan cadence, the cadence II_6-V-I, etc.

The student hears

and sees in the test book

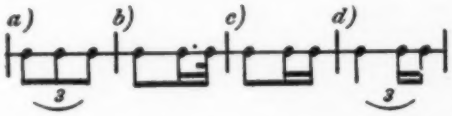
and indicates his answer by writing a, b, or c on the answer sheet. The point of contact is the complete first chord as well as the soprano and bass voices which remain constant. The soprano and bass voices were added to the first chord as points of contact in order to avoid visual cues in the peripheral area of the outside voices by which the student could make a decision without examining the inner voices of the harmonic mass.

Rhythmic Elements

The third and last section of the test is devoted to rhythm, and once again the problem of creating a test item which was musically significant as well as psychologically valid came to the fore. In order to build the test of rhythmic elements, the smallest rhythmic entity was established as being a rhythmic figure of one-beat duration.

However, two problems arose in this development: first, one-beat rhythmic figures have no significance when presented singly; secondly, if the rhythmic figures were stripped of all commonly co-existent musical factors (harmony and melody), as in previous tests, there would be left only the tapping of rhythms, a procedure in conflict with the declared objective of creating musical test items. As a result, melody was incorporated into the rhythm test in such a way that each single-beat rhythmic figure was given three times in a melodic line which was scalewise in the key of C.

Thus, melody, as applied, helped create a more musical presentation and aided perception and retention of the rhythmic figure without distracting from the critical task. However, although pitch is incorporated in the auditory stimulus, the answer form, from which the student makes his selection, contains only the rhythmic figures with no reference to pitch. The student indicates his answer by marking a, b, c, or d on the answer sheet.

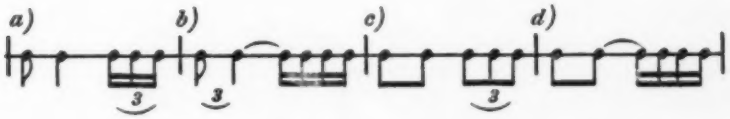


Before playing each rhythmic figure, the tempo is established aloud by the administrator, and the students are asked to make some kind of motion in order to "feel" the beat. Each of the distractors contains the same number of notes as the right answer, and all rhythms are given with the quarter-note unit of notation.

Rhythmic Idioms

The rhythmic idiom test combines two rhythmic elements into a two-beat figure.

It is presented in the same manner and with the same controls as the rhythmic elements.



Uses of the Aliferis Freshman Test

The *Aliferis Test* is an achievement test. It does not measure aptitude or talent. The test measures the entering student's ability to recognize melodic, harmonic, and rhythmic elements and idioms. Only this achievement is reported, and the evaluation of talent or prediction of the student's future success should not be made in terms of this test alone. Suggestions as to possible usage follow:

1. Theory and harmony instructors can use the test to group or section incoming freshmen according to the degree of achievement that the students display. The Total Score will be a help for the formation of homogeneous class sections, and the Part Scores in melody, harmony, and rhythm will report the individual student's strengths and weaknesses in each of these areas.

2. Students can be retested later during the year, or at the end of the year, to measure amount and rate of progress.

3. Department heads, or deans, can compare achievement of the incoming freshmen according to the various localities from which they come.

4. The department head can compare his class of incoming freshmen with national norms.

5. The department head can compare his freshmen with norms for the geographic region in which his school is located.

6. The department head can compare his school with norms for similar schools.

7. The department head can evaluate the relative effectiveness of individual theory staff members by comparison of class achievement. (This situation, of course, would be valid only if the classes were of approximately equal achievement before instruction began.)

These are some of the ways that the *Aliferis Freshman Test* can be used alone. However, talent appraisal and matters that deal with selection and rejection of students present more complicated problems. To probe these complexities, techniques must be developed for producing more accurate diagnoses which can be evaluated in terms of the school's desired or established standards.

Talent appraisal is a complex procedure which requires the appraisal of both musical and non-musical characteristics. The success of a program in counseling and guidance will depend directly upon the success with which the counselor is able to combine as much information as he can concerning the musical and non-musical traits of each student. However, an elaborate program is not necessary in order to establish what could be considered a basic, yet reliable, counseling service for the music student. For example, the following measurements would be sufficient to provide a minimal, reliable profile:

1. An appraisal of the ear's physiological acuity as shown by the Seashore measures.[4]

2. An appraisal of the student's ability to recognize the melodic, harmonic, and rhythmic forces of musical structure.

3. An appraisal of the student's performance on his instrument, in terms of the school's own standards.[5]

4. An appraisal of the student's intellectual capacity as generally given in terms of an I.Q.

These four measurements—native acuity, achievement in recognition, evaluation of performance, and I.Q.—can be considered basic, and minimal, for the formation of a reliable profile for the music student.

The following case illustrations of incoming freshmen will show how this information can be integrated for purposes of diagnosis and counseling: Student A—Seashore, EXCELLENT-SUPERIOR; Aliferis test, VERY HIGH; I.Q., above average; pre-college training included 12 years of private piano study, five years of clarinet, and participation in high school band and chorus. Needless to say, such a profile would be considered safe and any deviation from the expected standard of performance would probably be due to factors outside of music.

Student B—Seashore, GOOD-EXCELLENT; Aliferis test, BELOW AVERAGE. During the last two years of high school the student had taken up the tuba and previous to this he

[4]The Seashore tests are recommended for the measurement of the sensory acuity of the ear and not as the measurement of the student's "talent." The Seashore tests render a reliable report on the ear's ability to discriminate fine differences in pitch, time, quality, and intensity. This information is necessary for the complete formation of a talent profile, and it should be used for what it shows. However, the information should not be translated or interpreted as being, in itself, *the* talent profile.

[5]Performance is a most excellent reflector that can penetrate the darkest corners of musicianship in a manner which even the most ingenious test cannot do.

had had some piano instruction. A discrepancy appears between the Seashore and the Aliferis test results. This, however, is not conflicting evidence. Rather, the data reports that the student has sensory acuity but that during his pre-college years he never learned to make a meaningful association between notation and what he heard, other than translating notational symbols into fingering for performance on an instrument. The questions that must be raised in this case are: (1) can the school provide a special class for the student in order to bring him up to the school's standard, or (2) if placed in a regular class, can the student learn fast enough to keep abreast of the other students? To answer these questions it is necessary to go outside of music and examine the student's I.Q. In such a case, the I.Q. will play a very important role as to whether or not the student will be successful in music; for, if the I.Q. is strong, and the student is gifted with good acuity, he will be able to overcome the shortcomings of his pre-college training; but, if the I.Q. is low, the handicap of poor pre-college training plus slow rate of learning will combine to create obstacles so great that in spite of the GOOD-EXCELLENT Seashore report, the odds will be against the student's success. Student B also serves as an excellent illustration of how misleading diagnosis of aptitude and prognosis of success can be when prediction is based on the report of a single test. For example, since the Seashore profile was GOOD-EXCELLENT, one might predict unqualified success in music. On the other hand, from the Aliferis test score (BELOW AVERAGE) one might predict small chance for success. Obviously, neither conclusion is justifiable without further evidence.

One last case, Student C. The Seashore profile was LOW-AVERAGE and the Aliferis test was also BELOW AVERAGE. The major instrument was percussion and the pre-college experience was limited to high school band. In such a case, particularly if the I.Q. is not very strong, the student should be considered very carefully. It would be only fair and right that the student be advised of his limitations, the shortcomings of his previous training and the handicaps brought about by his limited experience. If, however, after the student has been tactfully informed of the situation, he remains determined to proceed in music, and if the counselor believes that there might be even a remote chance for passable success, then advantage should be taken of the information which the several tests have yielded and the student should be advised of his specific weaknesses and should be assisted in every possible way.

These three cases can hardly illustrate the manifold and complex problems that are encountered in counseling music students. However, they are illustrative of the various types of analyses that are necessary for a reliable appraisal of the musical profile, and show how different measurements must be integrated to produce a diagnosis upon which prediction of success can be more safely made.

Test Administrations and Analyses

The first edition of the test contained 330 items and was given in 1947 to 419 entering freshmen music students in ten schools throughout the country. These schools were selected to provide good representation as to type and geographic region. The second edition of 138 items was administered in 1949 by ten selected schools with a total of 376 entering freshmen. Reports were sent to each of the par-

ticipating schools after each administration, giving independent student scores, school score, and mean scores. After each administration, item analyses were made to determine indices of discrimination and difficulty. On the basis of these item analyses, reliability studies, and critical reviews after each administration, the test was revised until it warranted an administration on a national basis for purposes of standardization.

Participating Institutions

In the fall of 1950 the third edition of the *Aliferis Freshman Test* was offered to all colleges holding full or associate membership in the National Association of Schools of Music (hereafter abbreviated NASM). Seventy of the 190 members participated in the test administration. Statistical tests showed that these 70 were representative of the entire membership, both regionally and by type of institution.

The participating schools were classified according to the type of membership in the NASM. Classification according to type of institution was made on all schools except the junior colleges. The four year public and private universities and colleges were grouped according to geographic region. Each classification was then divided according to the number of colleges in the NASM, the number of colleges which gave the *Aliferis Freshman Test in Music Achievement* (AFMT), the number of entering freshmen music majors, and the number of entering freshmen who took the *Aliferis Freshman Test.*

Classification by NASM membership.—Membership classifications of the participating members as well as for the entire NASM membership are shown in Table 1. The table shows a total of 70 out of 190 colleges participating in the administration of the test, of which 58 (83 percent) are full members. Also classified are the number of entering freshmen music majors and entering freshmen who took the test. Of 7444 freshmen music majors entering all NASM member institutions, 1963 (38 percent) took the test.

Classification by type of institution.—The same distribution of schools, classified according to type of institution, excluding junior colleges, is summarized in Table 2. Although the number of participating liberal arts colleges was nearly equal to the combined total of all other types of participating schools, the student representation of the state universities was the largest, exceeding that of the liberal arts colleges in the total number of entering freshmen music majors as well as in the number of freshmen music majors who took the test. The total number of participating students from four-year institutions was 1936.

Classification by geographic regions.—The geographic distribution of four-year public and private colleges and universities is presented in Table 3. The geographic categorization was carried out as follows:

Eastern: States from Maine to Maryland and Delaware, and east to but excluding Ohio.

Midwestern: Ohio, Kentucky, and all states west to and including Kansas, Missouri, and Nebraska; north to the Canadian border.

Southern: Virginia, Tennessee, and all states west and south to and including Texas and Oklahoma.

Western: The Rocky Mountain and Pacific Coast states, including Montana, Wyoming, Colorado, New Mexico, and states west.

National: This is not determined by the sum of all tests, since some areas are disproportionately represented; rather it is a

TABLE 1

NASM MEMBERSHIP STATUS OF COLLEGES AND ENTERING FRESHMEN PARTICIPATING IN THE SURVEY OF MUSIC ACHIEVEMENT USING THE ALIFERIS FRESHMAN TEST IN MUSIC ACHIEVEMENT (AFMT) (REVISED, 1950)

Type of Membership	*Colleges in NASM*		*Colleges That Gave AFMT*		*Entering Freshmen Music Majors*		*Entering Freshmen Who Took AFMT*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Full members	152	80.0	58	82.9	6284	84.4	1683	85.7
Associate members	29	15.3	10	14.3	1029	13.8	253	12.9
Junior College members	9	4.7	2	2.8	131	1.8	27	1.4
Total	190	100.0	70	100.0	7444	100.0	1963	100.0

TABLE 2

DISTRIBUTION OF FOUR-YEAR INSTITUTIONS, CLASSIFIED BY TYPE OF INSTITUTION, MEMBERSHIP IN NASM, ENTERING FRESHMAN MUSIC MAJOR ENROLLMENT, AND PARTICIPATION IN THE SURVEY OF MUSIC ACHIEVEMENT USING THE ALIFERIS FRESHMAN TEST IN MUSIC ACHIEVEMENT (AFMT) (REVISED, 1950)[a]

Type of Institution	*Colleges in NASM*		*Colleges That Gave AFMT*		*Entering Freshmen Music Majors*		*Entering Freshmen Who Took AFMT*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
State Universities	37	20.9	17	25.0	1740	24.8	721	37.2
Private Universities	27	15.3	9	13.2	1416	20.2	239	12.4
Liberal Arts Colleges	75	42.4	32	47.1	1670	23.8	573	29.6
Teachers Colleges	13	7.3	6	8.8	656	9.4	235	12.1
Urban Conservatories	25	14.1	4	5.9	1528	21.8	168	8.7
Total	177	100.0	68	100.0	7010	100.0	1936	100.0

[a] Because of their small number, junior colleges and junior college students have been excluded from this table and from succeeding analyses.

TABLE 3

GEOGRAPHIC DISTRIBUTION OF NASM MEMBER COLLEGES, PARTICIPATING COLLEGES, AND CORRESPONDING ENTERING FRESHMEN MUSIC MAJORS, ALIFERIS FRESHMAN TEST IN MUSIC ACHIEVEMENT (AFMT) (REVISED, 1950)[a]

Geographic Regions	*Colleges in NASM*		*Colleges That Gave AFMT*		*Entering Freshmen Music Majors*		*Entering Freshmen Who Took AFMT*	
	No.	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Eastern	16	10.3	5	7.8	869	15.0	231	13.1
Midwestern	74	47.4	36	56.2	2802	48.4	1091	61.7
Southern	52	33.3	17	26.6	1534	26.6	337	19.1
Western	14	9.0	6	9.4	580	10.0	109	6.1
Total	156	100.0	64	100.0	5785	100.0	1768	100.0

[a] Including only four-year public and private colleges and excluding urban conservatories.

weighted sum to which each area contributes in proportion to its total number of entering freshman music majors.

While more than half (56.2 percent) of the participating colleges were in the Midwestern region, providing more than half (61.7 percent) of the student participation, NASM membership accounted for by the Midwestern colleges was only 47.4 per cent of the total membership. The representation of the Eastern and Western regions is small, both in NASM membership (10.3 and 9.0 percent, respectively), and in participation in the Aliferis study (7.8 and 9.4 percent, respectively). In terms of percentage of NASM membership participating within each geographic region, the results are: Eastern region, 31.2; Midwestern region, 48.6; Southern region, 32.7; and Western region, 42.9. The total number of participating students is 1768.

Test Analysis

The third edition of the *Aliferis Freshman Test in Music Achievement* consists of 64 items, divided into three sections as follows: melodic, 26 items; harmonic, 18 items; and rhythmic, 20 items. These 64 items were selected from an original test of 330 items on the basis of item analyses results of previous administrations. Item analyses of the 64 items used in the present administration showed difficulty indices ranging from .26 to .82. Discrimination indices ranged from .07 to .69 with only two indices less than .25. The results of this analysis indicate that the test is quite satisfactory with regard to its difficulty level and to its ability to discriminate between the good and the poor student in music, as measured by his total score on the test.

Reliability.—To obtain an indication of the consistency of measurement throughout the entire range of test items as related to part scores and total score, an estimate of reliability was calculated using the formula developed by Hoyt.[6] The criterion group was a random sample of 100 from the 1768 students representing all four-year public and private colleges and universities, but excluding urban conservatories. Comparison of the means and standard deviations of the sample with the total population showed that no statistically significant differences existed and the sample could be considered to be representative of the entire population. The estimated reliabilities for part-scores and total scores are: melodic, .84; harmonic, .72; rhythmic, .67; and total, .88. The reliability coefficient for the test as a whole is very high, and those for the part scores are quite acceptable for a test of this type and length.

Analysis of Scores

Analysis of scores by geographic region.—Mean scores and standard deviations for all four-year colleges and universities are tabulated by geographic regions in Table 4 for the three sections of the test and the total test. Results of the test of homogeneity of variances and analysis of variance are also shown. Schools in the Western area obtained the highest mean score on each section, as well as on the total test. However, the variability is also greatest for schools in the Western area on all but the rhythmic section. Lowest regional mean scores for all sections of the test and the total test are those of the Southern area. The smallest standard deviation was obtained by the Southern area on the melodic section, by the Midwestern area on the harmonic section and the total test, and

[6]C. J. Hoyt, "Note on a Simplified Method of Computing Test Reliability," *Educational and Psychological Measurement*, I (1941), 93-95.

TABLE 4

MEAN SCORES AND STANDARD DEVIATIONS, WITH SIGNIFICANCE OF DIFFERENCES, OF ALL FOUR-YEAR COLLEGES, ACCORDING TO GEOGRAPHIC REGIONS, ALIFERIS FRESHMAN TEST IN MUSIC ACHIEVEMENT (REVISED, 1950)

Geographic Region	*Melodic*		*Harmonic*		*Rhythmic*		*Total*		*Number of Tests*
	$\bar{X}$	*SD*	$\bar{X}$	*SD*	$\bar{X}$	*SD*	$\bar{X}$	*SD*	
Eastern	13.0	5.2	7.4	3.8	12.4	3.3	32.8	10.1	231
Midwestern	12.6	5.4	7.0	3.2	11.6	3.6	31.1	9.3	1091
Southern	11.1	5.0	6.7	3.4	10.9	3.5	28.6	10.0	337
Western	14.5	6.0	8.2	4.2	12.6	3.3	35.2	11.1	109
National	12.4	5.4	7.1	3.5	11.6	3.6	31.1	10.3	1768[a]
L-ratios[b]	.996		.991		.997		.997		
F-ratios[c]	14.587**		6.120**		12.216**		15.760**		

[a] This is a weighted sum to which each area contributes in proportion to its total number of entering freshman music majors.

[b] The L-ratio tests the hypothesis that all the samples come from populations having the same variance. The hypothesis is accepted in all cases.

[c] The F-ratio tests the hypothesis that there is no difference between the mean scores of the schools in the different geographic regions. The double asterisk indicates that this hypothesis is rejected at the one percent level of confidence.

TABLE 5

MEAN SCORES AND STANDARD DEVIATIONS, WITH SIGNIFICANCE OF DIFFERENCES, OF ALL FOUR-YEAR COLLEGES, ACCORDING TO TYPE OF INSTITUTION, ALIFERIS FRESHMAN TEST IN MUSIC ACHIEVEMENT (REVISED, 1950)

Type of Institution	*Melodic*		*Harmonic*		*Rhythmic*		*Total*		*Number of Tests*
	$\bar{X}$	*SD*	$\bar{X}$	*SD*	$\bar{X}$	*SD*	$\bar{X}$	*SD*	
Private Universities	13.9	5.6	8.0	3.8	12.7	3.5	34.6	10.8	239
State Universities	12.5	5.4	7.0	3.5	11.9	3.5	31.3	10.0	721
Liberal Arts Colleges	12.2	5.2	6.9	3.1	11.0	3.6	30.1	9.8	573
Teachers Colleges	11.3	5.3	6.8	3.6	11.4	3.3	29.4	9.8	235
Urban Conservatories	13.3	5.5	7.5	3.9	11.9	3.6	32.6	10.8	168
All Types (sum)	12.5	5.4	7.1	3.5	11.6	3.6	31.2	10.2	1936
L-ratios[a]	.999		.989		.995		.992		
F-ratios[b]	8.406**		5.874**		11.657**		11.241**		

[a] The L-ratio tests the hypothesis that all the samples come from populations having the same variance. The hypothesis is accepted in all cases.

[b] The F-ratio tests the hypothesis that there is no difference between the mean scores of the schools in the different geographic regions. The double asterisk indicates that this hypothesis is rejected at the one percent level of confidence.

by the Eastern and Western areas on the rhythmic section. Equality of variance was found for all sections of the test and for the total test for geographic regions. Analysis of variance showed that regional differences in mean scores could be considered significantly different at the one percent level of confidence.

Analysis of scores by types of institutions.—Mean scores and standard deviations, computed according to type of institution, for the three sections and the total test, are shown in Table 5. F- and L-ratios are also indicated, showing the results of the analysis of variance and the test for homogeneity of variance, respectively.

Highest mean scores on all sections as well as the total test were established by the private universities. Lowest mean scores were made by the teachers colleges, except on the rhythmic section, where liberal arts colleges made the lowest mean score. Private universities showed the highest standard deviation on the melodic section and nearly the highest on the harmonic section. Urban conservatories had high variability on the melodic and rhythmic sections, and highest on the harmonic section. Urban conservatories and private universities had the highest variability on the total test. Homogeneity of variance was found for all sections of the test and for the total test for the different types of institutions. Analysis of variance showed that differences in the mean scores of the different types of institutions could be considered statistically significant at the one percent level of confidence.

A study of the relationship of the test scores with achievement after two years of college study in the following areas of music performance and study is now in progress: (1) harmony-theory, (2) major applied instrument, (3) history and literature courses, (4) miscellaneous music courses, (5) ensemble and group performance, (6) general scholastic attainment.

Summary and Conclusions

This paper presents and discusses the philosophies and psychological concepts which initiated and supported the development of the *Aliferis Freshman Test in Music Achievement*. The nature of the test items is discussed and possible uses are suggested for the test by itself or in conjunction with other measures of musical talent. The population involved in the national administration is described and test results, categorized according to types of institution and to geographic regions, are tabulated. Results of the test analysis present a favorable picture of the test reliability and discriminative power.

Experience gained in the development of the test supplemented by the evidence brought forth by the national administrations seem to justify the following conclusions:

1. The Aliferis test fills the need for a measure of the college freshman music student's power of auditory-visual discrimination, employing recognizable musical materials incorporating adequate psychological controls.

2. The Aliferis test can be used alone by teachers, counselors, and administrators for purposes of grouping, comparison, and specific diagnosis, or in conjunction with other measures and information to provide greater accuracy in the appraisal of musical talent for use in counseling and guidance.

3. Statistically significant mean score differences exist between types of institutions and between geographic regions.

4. National norms for auditory-visual discrimination for college freshman music students are available.

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The Value of Notated Examples in Learning to Recognize Musical Themes Aurally

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IN LEARNING to recognize specific musical themes aurally, is attention to notated examples of value? Most teachers of music appreciation and literature believe so and commonly distribute packets of thematic excerpts at the beginning of each semester. Furthermore, a variety of authorities recommend such practice upon the basis of the general principle that "vision affords psychological support to audition—that to see what one hears tends to enable one to hear it better."[1] Randall Thompson, after making a nation-wide study of the teaching of music in American colleges, commented upon the frequency with which he heard teachers remark that, "even if a student 'cannot read a note of music,' he seems to derive some benefit" from a notated thematic example.[2]

However, a careful search of the literature pertaining to the teaching of musical literature failed to reveal a single study in which the value of using notated examples was actually put to a scientific test. That musical notation could be of great value to those unable to read it seemed especially problematical. Accordingly, an experiment was designed to test objectively the validity of the hypothesis that notated thematic examples are of value when thematic material is being learned aurally. The experiment sought answers to five specific questions: (1) Is there a significant difference between the ability to recognize a theme presented with the aid of a notated example and the ability to recognize one presented without such aid, when these abilities are tested immediately after presentation of the themes? (2) Is there a significant difference in abilities after an interval of one week? (3) Is there a significant difference in abilities after an interval of one month? (4) What relationship does musical aptitude, as judged by attained scores on a standardized test, bear to these abilities? (5) What relationship does knowledge of musical notation, as judged by attained scores on a standardized test, bear to these abilities?

The Experimental Design

Centenary Junior College for Women, located in Hackettstown, New Jersey, was the scene of the experiment, and 101 students took part. None of these was a music major although some had exceptionally fine musical backgrounds. Others had backgrounds in music which seemed surprisingly barren when considered in the light of present day educational opportunities.

Twenty musical themes were employed, each an unfamiliar work selected from those of composers whose names regularly appear on programs of serious concert music. Thus, each was

[1] James L. Mursell, *Education for Musical Growth* (New York: Ginn and Co., 1948), p. 38. See also the *Music Education Source Book*, ed. Hazel Nohavec Morgan (Chicago: MENC, 1947), p. 128, and Harry F. Moses, "The General Music Class," *Music Educators Journal*, XXXV (May-June 1949), p. 36.

[2] Randall Thompson, *College Music* (New York: Macmillan Co., 1935), p. 23.

in a familiar musical idiom. Only themes of essentially melodic character were used. In order to insure consistency in original and subsequent presentation, the themes were recorded on tape as performed upon a pipe organ.

All participating students were given the *Seashore Measures of Musical Talents,* Series A, 1940, and the *Kwalwasser-Ruch Tests of Musical Accomplishment.* Each student was placed in one of two groups, designated respectively as Group A and Group B, so that when the assignment was completed, both groups were equivalent with respect to the factors revealed by the two tests. The experiment was conducted in such a manner that each group served alternately as the control and the experimental group. The ten themes used for the learning process were numbered in rank order of difficulty with respect to aural recognition by a jury of twenty-five music educators. For the learning process, the themes were presented, not in 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 order, but in 1, 2, 4, 3, 5, 6, 8, 7, 9 10 order. Thus, the order of presentation made the odd numbered themes (in order of presentation) approximately equal to the even numbered themes in relation to ease of recognition.

As the themes were being played for the learning process, Group A used notated examples for the odd numbered themes, while Group B used them for even numbered themes. The groups were tested immediately for aural recognition of the themes, retested after one week, and again after one month. The testing process utilized another recording of the original ten themes plus ten new themes, presented in random order. The students were asked to tell whether each of the twenty themes was one of the original ten. After one week, another recording of the same twenty themes was played, presented this time in a different random order. The students were asked to answer as before. The same procedure was followed after one month. For testing after one week and after one month, the same notated thematic examples were given to the students who used them during the learning process, and a short study period was allowed to study the themes. These were studied silently. It was felt that if the students were being aided by them, this pre-study before retesting would increase the reliability of the results.

Treatment of Data

The experimental design made possible four comparisons when immediate recall was tested. Group A used notated examples for odd numbered themes, but did not use them for even numbered themes. If, then, the examples were of value, the mean for the odd numbered themes should have been significantly higher than the mean for the even numbered themes. The critical ratio substantiated that assumption. Table 1 shows the results in detail.

By the same token, Group B should have had a higher mean for the even numbered themes than for the odd numbered themes, because the notated examples were used by Group B when the even numbered themes were being learned. The difference should have been significant. However, examination of the data proved this not to be the case. Instead, Group B had a higher mean for the odd numbered themes than for the even ones, and that difference was significant. Since Group B did not use the visual aids for the odd themes, this result cast doubt upon the validity of the findings for Group A. In spite of the fact that the themes had been carefully scaled in relation to dif-

TABLE 1. COMPENDIUM OF COMPARISONS BETWEEN GROUP A AND GROUP B FOR ODD AND EVEN THEMES FOR IMMEDIATE RECOGNITION, RECOGNITION AFTER ONE WEEK, AND RECOGNITION AFTER ONE MONTH.

Used Notated Examples	*Group*	*Themes*	*Mean*	*Higher Mean*	*Critical Ratio*	*Significant*
			Immediate Recall			
Yes	A	Odd	4.47	Odd	4.60	Yes
No	A	Even	3.22			
Yes	B	Even	3.72	Odd	2.16	Yes
No	B	Odd	4.16			
Yes	A	Odd	4.47	Group A	2.08	Yes
No	B	Odd	4.16			
Yes	B	Even	3.72	Group B	2.83	Yes
No	A	Even	3.22			
			Recall After One Week			
Yes	A	Odd	4.55	Odd	5.51	Yes
No	A	Even	3.31			
Yes	B	Even	4.10	Odd	.13	No
No	B	Odd	4.12			
Yes	A	Odd	4.55	Group A	3.16	Yes
No	B	Odd	4.12			
Yes	B	Even	4.10	Group B	5.03	Yes
No	A	Even	3.31			
			Recall After One Month			
Yes	A	Odd	4.31	Odd	4.84	Yes
No	A	Even	3.41			
Yes	B	Even	4.28	Even	3.85	Yes
No	B	Odd	3.44			
Yes	A	Odd	4.31	Group A	5.21	Yes
No	B	Odd	3.44			
Yes	B	Even	4.28	Group B	5.72	Yes
No	A	Even	3.41			

ficulty and were presented in such order as to equalize the themes when the odd and even orders of presentation were compared, the odd themes must have been easier to recognize than the even ones.

At this point the experimental design made it possible to compare Group A and Group B on odd items only, and both groups on even items only. It was found that Group A did significantly better than Group B on the odd items. Since Group A used the examples for these items and Group B did not, it appeared that their use was of value. Group B used the examples for even items; Group A did not use them for these items. The data showed that

Group B had a higher mean than Group A, and that the difference was significant statistically, which added affirmative evidence to the hypothesis that there was value in the use of notated thematic examples. The results after one week and after one month added further confirmation to the findings for immediate recall.

A compendium of the results for immediate recall, recall after one week, and recall after one month is shown in Table 1.

The Influence of Musical Aptitude

In order to discover whether or not musical aptitude was related to the results, each group was divided at the median of the scores obtained from the *Seashore Tests*. Each group again was subdivided into two more groups, depending upon which items (themes) were used to arrive at the mean for the group. The results of the divisions and the key letters used to identify each are as follows:

AHO: Group A, higher aptitude, odd items
AHE: Group A, higher aptitude, even items
ALO: Group A, lower aptitude, odd items
ALE: Group A, lower aptitude, even items
BHO: Group B, higher aptitude, odd items
BHE: Group B, higher aptitude, even items
BLO: Group B, lower aptitude, odd items
BLE: Group B, lower aptitude, even items

Because a complete evaluation could not be made from these groups alone, combinations were necessary:

AHOBHE: Group A, higher, odd; Group B, higher, even
ALOBLE: Group A, lower, odd; Group B, lower, even
AHEBHO: Group A, higher, even; Group B, higher, odd
ALEBLO: Group A, lower, even; Group B, lower, odd
ABHOE: Group A, Group B, higher, odd, even
ABLOE: Group A, Group B, lower, odd, even

Data for the relationship of musical aptitude to the results obtained for immediate recall and for recall after one week paralleled that obtained in the comparisons established in Table 1, and musical aptitude appeared not to be a factor which related to the results.

Table 2 shows the results after the interval of one month and will be explained in detail because the experiment had generated a definite pattern by this time.

At the bottom of Table 2 under the heading "General," all students of relatively high musical aptitude are compared with all students of relatively low musical aptitude. The students of higher aptitude did better than the others, but the difference was not significant and could be attributed to chance.

The first category of four comparisons in Table 2 tests the equality of the groups. No significant difference appears. It should be noted that by this time, the difference between the odd and even items in relation to ease of recognition had been obviated.

The second category, which contains five comparisons, shows the difference between groups of high and low musical aptitude, when both used the notated thematic examples. A significant difference appears in the first, third, and fifth comparison, with those of relatively higher musical aptitude doing better in all comparisons. It appears that those of relatively high musical aptitude receive more benefit from the notated examples.

The third category compares groups

TABLE 2. COMPENDIUM OF COMPARISONS RELATIVE TO MUSICAL APTITUDE AND THE USE OF NOTATED THEMATIC EXAMPLES FOR RECOGNITION AFTER ONE MONTH.

	Musical Aptitude	*Notated Thematic Examples*	*Group*	*Musical Aptitude*	*Notated Thematic Examples*	*Group*	*Higher Group*	*C.R.*
	Higher	Yes	AHO	Higher	Yes	BHE	AHO	.82
1.	Higher	No	AHE	Higher	No	BHO	AHE	1.26
	Lower	Yes	ALO	Lower	Yes	BLE	BLE	.43
	Lower	No	ALE	Lower	No	BLO	BLO	1.67
	Higher	Yes	AHO	Lower	Yes	ALO	AHO	2.72
	Higher	Yes	BHE	Lower	Yes	BLE	BHE	1.27
2.	Higher	Yes	AHO	Lower	Yes	BLE	AHO	2.42
	Higher	Yes	BHE	Lower	Yes	ALO	BHE	1.61
	Higher	Yes	AHOBHE	Lower	Yes	ALOBLE	AHOBHE	2.94
	Higher	No	AHE	Lower	No	ALE	AHE	1.44
	Higher	No	BHO	Lower	No	BLO	BLO	1.47
3.	Higher	No	AHE	Lower	No	BLO	BLO	.25
	Higher	No	BHO	Lower	No	ALE	—	0.00
	Higher	No	AHEBHO	Lower	No	ALEBLO	ALEBLO	.17
	Higher	Yes	AHO	Higher	No	AHE	AHO	3.43
	Higher	Yes	BHE	Higher	No	BHO	BHE	3.12
4.	Higher	Yes	AHO	Higher	No	BHO	AHO	5.65
	Higher	Yes	BHE	Higher	No	AHE	BHE	3.74
	Higher	Yes	AHOBHE	Higher	No	AHEBHO	AHOBHE	4.63
	Lower	Yes	ALO	Lower	No	BLO	ALO	1.98
	Lower	Yes	BLE	Lower	No	ALE	BLE	4.42
5.	Lower	Yes	ALO	Lower	No	ALE	ALO	3.00
	Lower	Yes	BLE	Lower	No	BLO	BLE	2.21
	Lower	Yes	ALOBLE	Lower	No	ALEBLO	ALOBLE	3.76
	Higher	Yes	AHO	Lower	No	ALE	AHO	6.81
	Higher	Yes	BHE	Lower	No	BLO	BHE	3.42
6.	Higher	Yes	BHE	Lower	No	ALE	BHE	5.32
	Higher	Yes	AHO	Lower	No	BLO	AHO	4.59
	Higher	Yes	AHOBHE	Lower	No	ALEBLO	AHOBHE	4.48
	Lower	Yes	ALO	Higher	No	AHE	ALO	2.28
	Lower	Yes	BLE	Higher	No	BHO	BLE	3.77
7.	Lower	Yes	BLE	Higher	No	AHE	BLE	2.78
	Lower	Yes	ALO	Higher	No	BHO	ALO	3.33
	Lower	Yes	ALOBLE	Higher	No	AHEBHO	ALOBLE	4.33
				General				
	Higher	Yes & No	ABHOE	Lower	Yes & No	ABLOE	ABHOE	1.25

of relatively high musical aptitude with those of relatively low, when none used the examples. None of the comparisons shows a difference that is significant.

The fourth category compares groups of high musical aptitude when one group used, and the other group did not use, notated thematic examples. In every comparison the students who used them did better, and the difference was significant in each case.

The fifth category of comparisons shows the results when both groups were of relatively low musical aptitude. In the light of the data in the second category, this one is very interesting. A significant difference was found for each comparison, with those who used

the visual aids doing better in each case. Assurance regarding the significance of the difference, however, is not as strong for this category as for that of the fourth. It can be said that students of higher musical aptitude seem to derive more benefit from the use of notated thematic examples, but that those of comparatively lower musical aptitude derive benefit also, even though the difference is not so great.

The sixth category compares those of higher aptitude who used the aids with those of lower aptitude who did not use the aids, and the result is what could be expected. A significant difference appeared in every comparison, with those who used the aids doing better in each case.

The seventh category shows the results when groups of relatively low musical aptitude used the aids and groups of relatively high aptitude did not use them. Those of lower ability who used the aids surpassed those of higher ability who did not use the aids in each comparison. The difference in each case was significant.

In summary, then, it can be said that the comparisons show that the groups were equal when the visual aids were not considered. The higher group with respect to musical aptitude did no better than the lower group. However, when notated thematic examples were used for the items considered, the groups having more musical aptitude did better than those of lesser musical aptitude and the difference was significant in the majority of comparisons. This did not mean that the groups of lesser aptitude derived little benefit from the use of the aids because in every comparison between low groups, one of which used the aids, and the other not having recourse to them, there was a significant difference. It should also be noted that those of lower musical aptitude who used the aids did significantly better than those of higher aptitude who did not use them.

Musical aptitude showed a tendency to improve the value of notated thematic examples although the examples were of value regardless of musical aptitude.

The Influence of Music Reading Ability

Table 3 shows the relation of music reading ability to the use of notated thematic examples when this factor was compared after the interval of one month. The groups were subdivided in the same manner as they were for musical aptitude, but this time, ability in music reading was the criterion. This ability was determined on the basis of scores made on the *Kwalwasser-Ruch Tests*. The results for immediate recall, and recall after one week, follow the trends of the general data, and need not be explained in more detail.

A general comparison was made in order to determine whether or not those of higher music reading ability did better than those of lower ability when the variable of music reading ability was not considered. The result is shown at the foot of Table 3. The critical ratio of 1.57 shows that there was no significant difference between the groups. The first category compares like groups and shows no significant differences between any of them. The second category shows the results when groups of higher ability were compared with groups of lower ability and both used the notated thematic examples. No significant difference was found. This is interesting because a natural assumption would be that those of higher ability would do better.

The third category compares groups

TABLE 3. COMPENDIUM OF COMPARISONS RELATIVE TO MUSIC READING ABILITY AND THE USE OF NOTATED THEMATIC EXAMPLES FOR RECALL AFTER ONE MONTH.

	Music Reading Ability	*Notated Thematic Examples*	*Group*	*Music Reading Ability*	*Notated Thematic Examples*	*Group*	*Higher Group*	*C.R.*
	Higher	Yes	AHO	Higher	Yes	BHE	AHO	1.30
1.	Higher	No	AHE	Higher	No	BHO	AHE	.77
	Lower	Yes	ALO	Lower	Yes	BLE	ALO	.86
	Lower	No	ALE	Lower	No	BLO	BLO	.86
	Higher	Yes	AHO	Lower	Yes	ALO	AHO	.86
	Higher	Yes	BHE	Lower	Yes	BLE	BHE	.42
2.	Higher	Yes	AHO	Lower	Yes	BLE	AHO	1.62
	Higher	Yes	BHE	Lower	Yes	ALO	ALO	.47
	Higher	Yes	AHOBHE	Lower	Yes	ALOBLE	AHOBHE	.57
	Higher	No	AHE	Lower	No	ALE	AHE	1.43
	Higher	No	BHO	Lower	No	BLO	BLO	.29
3.	Higher	No	AHE	Lower	No	BLO	AHE	.37
	Higher	No	BHO	Lower	No	ALE	BHO	.65
	Higher	No	AHEBHO	Lower	No	ALEBLO	AHEBHO	.86
	Higher	Yes	AHO	Higher	No	AHE	AHO	3.44
	Higher	Yes	BHE	Higher	No	BHO	BHE	3.36
4.	Higher	Yes	AHO	Higher	No	BHO	AHO	5.51
	Higher	Yes	BHE	Higher	No	AHE	BHE	3.66
	Higher	Yes	AHOBHE	Higher	No	AHEBHO	AHOBHE	4.95
	Lower	Yes	ALO	Lower	No	BLO	ALO	3.74
	Lower	Yes	BLE	Lower	No	ALE	BLE	4.39
5.	Lower	Yes	ALO	Lower	No	ALE	ALO	4.44
	Lower	Yes	BLE	Lower	No	BLO	BLE	2.21
	Lower	Yes	ALOBLE	Lower	No	ALEBLO	ALOBLE	4.67
	Higher	Yes	AHO	Lower	No	ALE	AHO	6.19
	Higher	Yes	BHE	Lower	No	BLO	BHE	3.36
6.	Higher	Yes	AHO	Lower	No	BLO	AHO	4.33
	Higher	Yes	BHE	Lower	No	ALE	BHE	5.00
	Higher	Yes	AHOBHE	Lower	No	ALEBLO	AHOBHE	6.56
	Lower	Yes	ALO	Higher	No	AHE	ALO	4.16
	Lower	Yes	BLE	Higher	No	BHO	BLE	3.72
7.	Lower	Yes	BLE	Higher	No	AHE	BLE	3.07
	Lower	Yes	ALO	Higher	No	BHO	ALO	4.81
	Lower	Yes	ALOBLE	Higher	No	AHEBHO	ALOBLE	5.92
					General			
	Higher	Yes & No	ABHOE	Lower	Yes & No	ABLOE	ABHOE	1.57

of higher and lower ability when neither used the examples, and the results were what might be expected. No significant difference was found.

In the fourth category, those of higher ability who used the examples are compared with those of like ability who did not use them. Each comparison shows the superiority of the group which used the examples, and the difference is significant in each.

The fifth category compares groups of lesser music reading ability when one used the examples and the other did not use them. In each case, those who used the aids did significantly better than those who did not use them. This confirms the assumption of music educators who have faith in the value of notated thematic examples even for students unfamiliar with musical notation.

In the sixth category, those of higher ability who used the examples, are compared with those of lower ability who did not use them. A significant difference in each comparison appeared, with those who used the aids obtaining the higher mean.

The seventh category compares those of comparatively low music reading ability who used the notated thematic examples with those of higher music reading ability who did not use them. The results were surprising. In every case, those who used the notated thematic excerpts did better, and there is no doubt about the significance of the differences.

In summary, music reading ability seemed to bear no relation to the value of the notated thematic examples. They were of value to everyone regardless of ability in music reading. It should be noted that the experiment was predicated on groups and not individuals, and that while certain individuals might be excellent music readers and derive more benefit from the notated thematic examples, these exceptions did not alter the performance of the group to any appreciable degree.

General Conclusions

The general outcomes of the experiment appear to answer the original questions as follows:

(1) There was a significant difference between the aural recognition of a theme which was presented with the aid of a notated thematic example and one which was presented without the visual aid, when recognition was based on recall immediately after the themes were presented. The former was better recognized.

(2) There was a significant difference between the aural recognition of a theme which was presented with the aid of a notated thematic example and one which was presented without the visual aid, when recognition was based on recall after the interval of one week.

(3) There was a significant difference between the aural recognition of a theme which was presented with the aid of a notated thematic example, and one which was presented without the visual aid, when recognition was based on recall after the interval of one month.

(4) Musical aptitude appeared to increase the value of the examples, but they were of value to everyone regardless of musical aptitude.

(5) Ability in the reading of music notation appeared to have no significance when the value of the notated thematic examples was analyzed.

Further Research Needed

Some questions which were not answered by the experiment might be considered for future research.

(1) Why does not ability in music reading bear any relationship to the value derived from using notated thematic examples?

(2) How may notated thematic examples be presented most effectively?

(3) How long may a notated thematic example be before the law of diminishing returns begins to function?

(4) Are simple harmonic notated thematic examples of more value than melodic ones?

(5) Are notated thematic examples of value in learning rhythms?

(6) Can better means for testing musical aptitude and ability in music reading be developed?

It is hoped that the above questions will stimulate more interest in the problem and that future research will attack some of them.

Centenary Junior College for Women

Characteristics of First Year Conservatory Students

CORWIN H. TAYLOR

Nature and Purpose of the Study

THIS SUMMARY and analysis of the characteristics of 348 students entering the Peabody Conservatory of Music during the years 1947-49 describes one segment of a project sponsored by the administration of that institution.[1] The experiment had three objectives: (1) the acquisition of more detailed and accurate information about the student body than had previously been collected, (2) the discovery, if possible, of any factor or factors obtainable by group psychometric techniques which might aid in predicting success or failure in the Conservatory, and (3) the refinement of certain measures of musical potentiality already constructed. The present report is concerned with the first and second of these objectives; progress toward the third objective is reserved for future description.

From classes entering the Conservatory in the October semesters of 1947, 1948, and 1949, a total of 212 men and 136 women participated in the program. A detailed questionnaire and certain tests to be described were administered to these students at the time of their entrance. At the beginning of the current academic year (1952-53) the administration of the Conservatory identified certain students of this group who represented the best ideals of the institution. These individuals were judged to have made the most progress, exhibited the finest talent, achieved the highest standards, and exemplified the most desirable personal and social characteristics. In short, they approximated most nearly the ultimate in desirability, suitability, and accomplishment from the institutional viewpoint. This list contained 41 names, 19 men and 22 women. Certain other students who occupied positions at the opposite end of the scale were also identified. They represented the minimum in desirability, suitability, and accomplishment. This list contained 28 names, 16 men and 12 women (who, for the most part, had been dropped or diverted). The responsibility for the construction of these lists and the criteria qualifying the selective students was completely assumed by the administration of the Conservatory. The data which follow are presented in tabular form where possible, to permit easy comparison of these three groups: (1) the "desirable" group, hereinafter referred to as *upper;* (2) the complete roster of participating students, hereinafter referred to as *total;* (3) the "undesirable" group, hereinafter referred to as *lower.*

The general plan of the experiment was based upon the fundamental assumption that as many pertinent aspects of that total complex which is represented by the beginning conserva-

[1]Dr. Reginald Stewart, Director of the Conservatory, was responsible for the approval which initiated the study and for the support essential to its continuance; Miss Virginia Carty, Dean of the Conservatory, planned and directed the administrative arrangements.

TABLE 1. AGES, HEIGHTS, AND WEIGHTS

	Men			Women		
	Upper	*Total*	*Lower*	*Upper*	*Total*	*Lower*
In years:						
Average age	20.83	21.42	23.00	19.50	19.84	19.00
Age range	17-37	16-44	17-34	17-38	15-42	17-23
In inches:						
Average height	69.55	69.50	70.68	64.14	64.39	64.08
Height range	67-75	60-75	61-75	60-71	56-73	61-66
In pounds:						
Average weight	147.67	153.36	152.20	122.95	124.01	122.00
Weight range	125-188	100-280	132-250	100-180	96-180	108-150

TABLE 2. AVERAGE NUMBER OF CHILDREN PER FAMILY

Men			Women		
Upper	*Total*	*Lower*	*Upper*	*Total*	*Lower*
2.79	3.40	2.69	2.45	3.01	2.17

TABLE 3. AVERAGE AGE OF PARENTS OF STUDENTS

	Upper	*Total*	*Lower*
In years:			
Average age of students' fathers	51.78	52.74	54.37
Age range of students' fathers	43-79	40-79	43-75
Average age of students' mothers	49.27	48.86	49.19
Age range of students' mothers	35-76	35-76	38-68

TABLE 4. PARENT'S OCCUPATIONS

	% Fathers			% Mothers		
	Upper	*Total*	*Lower*	*Upper*	*Total*	*Lower*
Housewife	..	..	..	84	77	75
Professional	34	24	38	7	5	10
Skilled	20	20	14	3	2	0
Business	15	18	15	6	2	4
Sales	5	6	3	0	1	4
Managerial	10	6	0	0	0	0
Clerical	7	5	0	0	6	4
Agriculture	2	4	3	0	0	0
Semi-professional	0	3	3	0	1	0
Semi-skilled	0	2	0	0	1	0
Service	0	1	0	0	0	0
Deceased, retired, or not indicated	7	11	24	0	5	3

tory student should be measured as the practical limitations of available time (two three-hour testing periods) permitted. To concentrate on that relatively restricted cluster of traits which we recognize as manifestations of musical talent seemed to limit the investigation unnecessarily at the outset. It is true that musical talent exists in its own right, and that individuals apparently possess it in greater or lesser amounts, but it is equally true that talent is a function of the total organism, and, in view of the dubious performance of music talent tests to date, a less specific approach to the problem seemed to promise richer results.[2] It was hoped—and assumed—that, by assembling as much data as possible about all students over a period of time, certain patterns of characteristics would reveal themselves as common to all successful music students. This also seemed a reasonable expectation with reference to unsuccessful students, an expectation which, if realized, would enable the administration to turn away unpromising applicants with much more authority and much less moral risk than sometimes prevails. The attributes measured were intelligence, preference, personality, and musical talent. The questionnaire covered a wide variety of topics, data upon which immediately follow.

Questionnaire Data

Certain information elicited by the questionnaire, such as birthplace, religious affiliation, year of high school graduation, and other matters of purely local interest, is here omitted.

Age, height, and weight.—Averages and ranges for these characteristics are given in Table 1. The relatively advanced age of the men is due, of course, to the presence of veterans of World War II. The men in the lower group are, on the average, older, heavier, and taller than the male students in the upper group. Other differences do not seem to fall into a pattern of any significance.

Family size.—Fourteen percent (or one in seven) of the students in the total group had no brothers or sisters; this figure doubles itself (29 percent, or one in three and one-half) for the upper group, and drops to 21 percent (one in five) for the lower group. The average number of children per family for each group is given in Table 2. It is apparent that not only do the upper and lower groups deviate from the total group with respect to family size, but that they deviate in the same direction. This phenomenon is evident in other characteristics.

Parents' age.—Figures on the age of students' parents at the time the students were admitted to the Conservatory do not offer much contrast. There is, on the average, less difference in age between the mothers and fathers of students in the upper group than exists between the parents of students in the total and lower groups. Fathers of students in the lower group are slightly older than other fathers.

Parents' occupations.—With the exception of "business," which refers to the operation and/or ownership of a private business (usually a small retail establishment) and "housewife," the classifications in Table 4 follow those of the *Dictionary of Occupational Titles*, published by the United States Department of Labor. The figures indicate percentages of the respective groups. It will be noted that a dispro-

[2]It will be recalled that Seashore originally recommended a much more comprehensive approach to the measurement of musical talent than that supplied by his tests or undertaken by their advocates. See Carl Emil Seashore, *The Psychology of Musical Talent* (New York: Silver, Burdett and Co., 1919) chap. i.

TABLE 5. EVIDENCE OF MUSICAL TALENT IN FAMILY

	% Upper	% Total	% Lower
Professional musicians in family:			
None	80	80	75
One	10	11	11
Two	10	6	14
Three	0	1	0
Five	0	1	0
Six	0	1	0
Music teachers in family:			
None	86	83	82
One	12	12	12
Two	2	3	4
Three	0	0	2

portionate number of the lower group made entries with respect to their fathers' occupations which placed them in the "Deceased, retired, or not indicated" category. A check revealed but few deaths or retirements; there was apparently a reticence about disclosing fathers' vocations. Two further points are worthy of mention: (1) both the upper and lower groups exceeded the total group in the proportion of fathers following professions, and (2) the upper group had few working mothers.

Evidence of musical talent in family.—Students reported the incidence of professional musicians and music teachers in their immediate families. The percentages in Table 5 denote the proportion of each group in the categories indicated. The lower group appears to have a slight edge over the others with respect to the amount of professional talent in their immediate families. More interesting, by far, is the fact that in general only one student in five comes from a family having professional musical background.

High school enrollment.—The percentages in Table 6 denote the proportion of each group graduating from high schools of enrollments indicated. These figures would seem to indicate that successful music students come primarily from large high schools. A more complete explanation, borne out by the figures on community population, is that they come from large communities where musical advantages are more accessible.

Community population.—Students reported that their home communities were distributed according to population as set forth in Table 7. The figures represent percentages of each group in

TABLE 6. SIZE OF HIGH SCHOOL ATTENDED

	% Upper	% Total	% Lower
School enrollment:			
Less than 250 students	10	11	19
250 to 500 students	7	13	16
500 to 1000 students	15	20	34
1000 or more students	68	56	31

TABLE 7. COMMUNITY POPULATION

	% Upper	% Total	% Lower
Community population:			
Less than 500	2	3	7
500 to 5000	17	11	21
5000 to 15,000	10	16	14
15,000 to 50,000	7	14	21
50,000 to 100,000	7	11	4
100,000 to 500,000	13	10	7
Over 500,000	44	35	26

TABLE 8. SUBJECT PREFERENCES

	Liked Best			*Liked Least*		
	% Upper	*% Total*	*% Lower*	*% Upper*	*% Total*	*% Lower*
Music	49	46	54	0	0	0
English	10	18	11	17	9	11
Mathematics	20	10	0	31	45	50
Foreign Language	15	9	14	5	9	7
History	6	7	7	20	15	11
Physical Science	0	3	0	15	13	14
Art	0	2	3	0	1	0
Social Science	0	2	0	0	3	7
Biological Science	0	2	11	10	3	0
Religion	0	1	0	0	1	0
Shop	0	0	0	0	1	0
Home Economics	0	0	0	0	1	0
Commercial Subjects	0	0	0	2	1	0

the categories indicated. Only 36 percent of the upper group came from communities of less than 50,000, as against 63 percent of the lower group. Conversely, 57 percent of the upper group were from cities of 100,000 or larger, as against 33 percent of the lower group. Stated in another way, almost half of the total Conservatory student population, almost two thirds of the upper group, and one third of the lower group come from cities of 100,000 or over.

Best and least liked school subjects.—Students reported their high school preferences as given in Table 8. Figures, as heretofore, represent percentages. One conspicuous point in this table is the distaste of the lower group for mathematics. While 31 percent of the upper group liked mathematics least, 20 percent liked it best, as against none in the lower group. Both groups deviate from the total group with respect to English and foreign language, and deviate in parallel. The total group had a stronger preference for English, a weaker one for foreign language.

Highest and lowest grades received.—Students reported the subject in which they had received their highest and lowest grades to be distributed as given in Table 9. The lower group again displays difficulty with mathematics. However, both upper and lower groups exceed the total group in competence in foreign language. Other instances of parallel deviation occur in physical science and history. The real relationship between high school grades in music and success at the Conservatory is difficult to define. The issue is clouded by the widely varying practices of secondary schools in granting grades in music.

Foreign languages studied.—Students reported in the percentages indicated that they had studied the languages listed in Table 10. Many students had studied more than one language. The average for the upper group was 1.81, for the total group 1.67, for the lower group, 1.65. Roughly, two

TABLE 9. HIGHEST AND LOWEST GRADES RECEIVED

	Highest Grades			*Lowest Grades*		
	% Upper	*% Total*	*% Lower*	*% Upper*	*% Total*	*% Lower*
Music	45	35	40	0	0	0
English	15	20	21	20	10	11
Mathematics	12	10	7	33	40	60
Foreign Language	20	16	21	6	10	7
History	6	10	7	20	13	0
Physical Science	0	4	0	12	17	11
Art	0	2	4	0	0	0
Social Science	2	1	0	0	2	11
Biological Science	0	1	0	5	2	0
Religion	0	0	0	0	1	0
Shop	0	0	0	0	1	0
Home Economics	0	0	0	0	1	0
Commercial Subjects	0	1	0	4	2	0
Athletics	0	0	0	0	1	0

out of three students of the total and lower groups had studied more than one language; for the upper group the figure is four out of five. Latin and French were most commonly combined.

Language spoken at home.—Seventeen percent of the upper group, 18 percent of the total group, and 39 percent of the lower group reported that some language other than English was spoken in their homes. German and Italian were most frequently mentioned. Since the figure for the lower group is better than double those noted for the others, some significance may be attached to it.

TABLE 10. FOREIGN LANGUAGES STUDIED

	% Upper	*% Total*	*% Lower*
Latin	61	51	54
French	49	51	50
Spanish	29	33	21
German	20	18	25
Italian	13	5	7
Greek	2	2	0
Russian	0	1	0
Hebrew	0	1	0
Japanese	0	1	0
None	7	5	15

School demotions.—Ten percent of the upper group, 14 percent of the total group, and 14 percent of the lower group indicated that at some time they had been demoted once in school. Causes for these demotions in the number of instances involved were reported as follows: illness (20), lack of ability (7), laziness (7), changes of residence (5), lack of interest (2), too many activities (1), not indicated (3).

Principal musical study.—Major musical interests were listed in the percentages given in Table 11. Interest in this table centers on the preponderance of wind and percussion players in the upper group and their absence in the lower group. The reverse of this situation exists with respect to com-

TABLE 11. PRINCIPAL MUSICAL STUDY

	% Upper	% Total	% Lower
Piano	29	37	32
Voice	24	26	32
Brass	15	9	0
Woodwind	15	6	0
Strings	2	9	11
Organ	10	6	11
Composition	0	6	14
Percussion	5	1	0

TABLE 12. VOCATIONAL OBJECTIVES

	% Upper	% Total	% Lower
Studio teacher	15	27	26
Concert artist	20	18	21
Orchestral performer	15	12	3
School music teacher	20	10	14
Opera singer	9	5	11
Composer	0	5	11
Choirmaster (organist)	17	4	11
Radio or television artist	2	4	0
Accompanist	2	1	0
Conductor	0	1	0
Arranger	0	1	0
Critic	0	1	3
Self satisfaction	0	1	0
Undetermined	0	9	0
Not indicated	0	1	0

position. It is possible that these figures are due to coincidence, but they supply ground for interesting speculation.

Objectives.—Vocational objectives toward which students directed their study were tabulated according to the percentages given in Table 12. This table, as would be expected, bears a close relationship to the preceding one. Points of interest are the contrast of the total group with the other two where choirmasters and school music teachers are concerned, the presence of composers and critics in the lower group and their absence in the upper, and the absence of undetermined objectives in the lower group.

Prior musical study.—Students reported the amount of musical study they had completed before entering the Conservatory. A "year" of study is a loose term, and should be so interpreted. In many instances it probably refers to a weekly piano lesson. The average for the upper group was 7.07 years, for the total group 6.57 years, for the lower group 5.43 years. Thus, the lower group averaged a year less than the total group, a year and a half less than the upper.

Prior musical experience.—Students reported their musical experience previous to Conservatory entrance by type. The figures given in Table 13 are percentages for the groups.

TABLE 13. PRIOR MUSICAL EXPERIENCE

	% Upper	% Total	% Lower
School only	24	25	25
Amateur only	17	26	21
School and amateur	17	18	17
Church	17	15	18
Professional	15	8	5
None	10	8	14

Concerts attended.—The percentage figures in Table 14 indicate the proportions of the various groups attending concerts (in the preceding year) in the numbers noted. The weight of concert attendance favorable to students of the lower group gives rise to speculation.

TABLE 14. CONCERTS ATTENDED

	% Upper	% Total	% Lower
None	5	11	8
1 to 10	32	28	17
10 to 20	34	32	29
20 or more	29	29	46

Perhaps these students were better equipped to appreciate music than to perform it.

Hobbies.—The list of hobbies mentioned by the students runs to 103 titles. The most surprising point (to the writer, at least) was the popularity of athletics and sports. This choice was indicated by 44 percent of the upper group, 36 percent of the total group, and 21 percent of the lower group. The most popular hobbies after athletics and sports were reading and literature, art, photography, stamps, records, drama, writing, cooking, and dancing. Two percent of the upper group, 13 percent of the total group, and 14 percent of the lower group confessed to having no hobby.

Test Data

Intelligence.—The test used was the *American Council on Education Psychological Examination for College Freshmen, 1944 Edition.* The authors state that "mental ages and intelligence quotients are indeterminate for the upper half of the adult population . . . . College students can be assumed to score above the average for the adult population of the country and, consequently, they cannot be assigned any mental age or intelligence quotients. . . . Test norms should be tabulated in terms of percentile ranks . . . for a specified group." [3] The figures given in Table 15 are mean percentile ranks, based on norms for all types of colleges.[4]

The test yields a subscore based on responses to items requiring quantitative understanding, a subscore based on responses to items requiring language comprehension, and then combines them for a total measurement. There are separate norms for the sexes. The men of the upper group have a slight superiority over the others, but not a considerable one. There is apparently little difference where the women are concerned. All men rated substantially lower on quantitative tests than on language tests. This is true of the women, except for those in the upper group. The total achievement of the men in the upper and lower groups is greater than that of the total group, but this is not true of the women. The total achievement of the men in the lower group is slightly higher than that of the women in the upper group. Apparently the level of intelligence of the average Conservatory student is that of the average American college student.

Preference.—The test employed was the *Kuder Preference Record, Form BB,* which yields scores in the nine areas listed in Table 16. It is emphasized that the percentiles represent expressed preferences, not measured aptitudes.[5] The test is recognized as one of "the more carefully constructed and useful instruments for the appraisal of

[3] L. L. Thurstone and Thelma Gwinn Thurstone, *Psychological Examination for College Freshmen, 1944 Norms,* American Council on Education Studies, Series V, No. 9 (Washington, D. C.: American Council on Education, 1944), pp. 1-2.

[4] Thurstone and Thurstone, pp. 11, 14, 15.

[5] G. Frederic Kuder, *Revised Manual for the Kuder Preference Record* (Chicago: Science Research Associates, 1946), p. 3.

TABLE 15. MEAN PERCENTILE RANKS, *ACE* PSYCHOLOGICAL EXAMINATION

	Men			*Women*		
	Upper	*Total*	*Lower*	*Upper*	*Total*	*Lower*
Quantitative	51	40	37	57	36	32
Linguistic	67	57	63	48	52	49
Total	62	50	53	50	50	45

TABLE 16. MEAN PERCENTILE RANKS, KUDER PREFERENCE RECORD

	Men			*Women*		
	Upper	*Total*	*Lower*	*Upper*	*Total*	*Lower*
Mechanical	23	14	13	28	32	21
Computational	28	26	18	27	23	13
Scientific	32	28	27	34	38	25
Persuasive	32	35	26	51	53	60
Artistic	85	79	82	63	65	65
Literary	64	69	70	56	54	77
Musical	98	98	99	98	98	98
Social Service	30	42	33	44	43	54
Clerical	54	47	27	35	28	22

interests."[6] With respect to the men, the highest measured preferences are, as might be expected, musical and artistic, with literary running a poor third. The women's scores do not show a comparable strength in artistic and literary preference, but are stronger than the male scores in the persuasive phase. The marked difference between preference for art as here measured and preference for art as expressed in the title of best liked subjects creates some doubt as to the adequacy of artistic experiences offered by the secondary schools. Though difficult to interpret, it is interesting to observe that both men and women in the upper group substantially exceeded those of the lower group in the mechanical, computational, and clerical categories. In the total group, however, the women surpassed the men in mechanical preference, whereas the reverse is true in clerical preference. Differences between percentiles of low numerical value are of doubtful significance, but the differences do make a pattern.

Personality.—Two tests were employed. The first was the *Adjustment Inventory, Student Form,* by Hugh M. Bell.[7] This self-questionnaire reveals the status of an individual with reference to home adjustment, health adjustment, social adjustment, and emotional adjustment in terms of five levels: excellent, good, average, unsatisfactory, and very unsatisfactory for all areas excepting social adjustment,

[6]Arthur E. Traxler, *Techniques of Guidance* (New York: Harper and Bros., 1945), p. 107.

[7]Stanford University, California: Stanford University Press, 1938.

where the levels are very aggressive, aggressive, average, retiring, very retiring. The limitations of this instrument are recognized, the principal one being that its accuracy is completely at the mercy of the subject, who may or may not answer the questions "frankly and honestly," as requested in the instructions. There are other criticisms of the test,[8] but, everything considered, it seemed the test best adapted to the purposes and limitations of the program at hand. In actual use the test proved interesting to the students and valuable to the administration. Cases of "very unsatisfactory" adjustment were investigated, and assistance was extended where possible. Probably some maladjusted individuals evaded the purpose of the test, but certainly others were discovered and helped.

As would be expected, most of the students in most of the groups fall into the "average" category. There were two exceptions. Women of the lower group showed, on the average, unsatisfactory adjustment in relation to health. Men in the lower group showed unsatisfactory adjustment in relation to home. One student in seven of the upper group showed very unsatisfactory adjustment in one phase; in the lower group the ratio was one student in three. Most interesting is the fact that three-fifths of all the very unsatisfactory scores were in the area of home adjustment. On the positive side, one student in two of the upper group showed excellent adjustment in one phase; in the lower group the ratio was one student in two and one half.

The second test employed as a personality measure, the *Harrower Multiple Choice Test* for use with Rorschach cards or slides, is an attempt to adapt the famous "inkblot" tests to group use.[9] For each inkblot projected on the screen the subject is asked to check three out of thirty (one each out of three sets of ten) supplied answers which best describe the inkblot or any of its parts. After the three required descriptions are indicated the subject may check any others he feels appropriate. Half of the supplied answers are "good," i.e. derived from responses given by normal personalities, and half are "bad," i.e. derived from responses given by abnormal personalities. It is suggested that papers containing more than 40 percent of "poor" answers be investigated.

Projective techniques have been rich in promise and often fruitful in yield.[10] The use of Rorschach slides was incorporated into the Peabody battery in the hope of ultimately defining, from one viewpoint at least, the "musical personality."[11] This is another study, and, if developments justify, will be reported. Present interest centers in group comparisons and those individuals who exceeded 40 percent of "poor" responses.

The upper group, on the average, checked 30 percent of "poor" responses, the total and lower groups 37 percent each. Six members of the upper group (one student in five and three-fifths) exceeded the 40 percent mark. None of these eleven students gave any evidence of serious maladjustment on the *Bell Adjustment Inventory*. On being questioned as to evidence of emotional disturbance or personality diffi-

[8]See James L. Mursell, *Psychological Testing* (New York: Longmans, Green and Co., 1947), pp. 245-246.

[9]M. R. Harrower-Erickson and M. E. Steiner, *Large Scale Rorschach Techniques* (Springfield, Illinois: Charles C. Thomas, 1945).

[10]Lawrence K. Frank, *Projective Methods* (Springfield, Illinois: Charles C. Thomas, 1948).

[11]Goldie Ruth Kaback, *Vocational Personalities*, Teachers College Contributions to Education, No. 924 (New York: Teachers College, Columbia University, Bureau of Publications, 1946).

culty in these eleven students, the administration of the Conservatory indicated without exception that there had been no evidence in the behavior of the upper group students, and, again without exception, that there had been evidence in the behavior of the lower group students. Several questions immediately arise: (1) did the Rorschach slides reveal genuine difficulties in all students, overt expression of which was inhibited for one reason or another in the students of the upper group, or (2) did the tests completely miss the key differences between the groups, or (3) was the judgment of the Conservatory administration conditioned by a "halo effect" where upper group students were concerned? A careful recheck points to an answer lying somewhere between the first two of the above suggestions.

Music.—It is scarcely necessary to review the controversy which has centered about the *Seashore Measures of Musical Talents.*[12] *Series B* of the test was incorporated into the program because, whether or not the functions it measures are genuine elements of musical talent, it still has a negative prognostic value: individuals who achieve high scores on the test may or may not be musical, but those receiving low scores certainly are not. Percentile ranks for the three groups are given in Table 17. In general the figures seem lower than they should be, especially those for pitch. Pitch, however, is the only function in which the figures behave according to expectation. In four phases the upper and lower groups both surpass the total group, sometimes by a considerable margin. The total picture is a rather confusing one.

The second test in the area of music is one for which the writer is responsible.[13] Its development, noted as the third objective in the project presently described, will be the subject of a future report. For the present it is sufficient to say that the test seemed to possess validity and reliability to a degree supporting its continued use and refinement. Results from three principal sections of the test are here reported. The first two attempt to measure sensitivity to the basic orders of musical perception—tonality and rhythm. The first function is measured by requiring the subject to identify the mode—major or minor—of (a) compositions and (b) chords. The rhythmic function is tested by requiring the subject to indicate (a) how a composition counts—the beat pattern, and (b) whether the speed of the beat becomes slower, faster, or remains constant. The third test is frankly a measure of educational status, of musical background. It requires the subject to identify by title and composer twenty compositions, the titles of which were selected by forty administrators and teachers in the field of music education. The mean percentile ranks are given for the groups indicated in Table 18. There is

TABLE 17. MEAN PERCENTILE RANKS, SEASHORE MEASURES

	Upper	*Total*	*Lower*
Pitch	65	55	50
Loudness	70	65	66
Rhythm	80	78	82
Time	68	69	69
Timbre	83	81	83
Tonal memory	76	65	75

[12]Camden, New Jersey: RCA Manufacturing Co., Inc., 1939.

[13]"The Construction and Validation of Certain Experimental Measures of Musical Potentiality," in *Graduate Theses in Education* (Cincinnati: Teachers College, University of Cincinnati, 1944), IV, 97-116.

TABLE 18. MEAN PERCENTILE RANKS, TAYLOR TEST

	Upper	*Total*	*Lower*
Tonality, Compositions	53	53	53
Tonality, Chords	52	46	61
Rhythms, Meter	66	53	53
Rhythm, Tempo	65	65	47
Knowledge of musical literature	79	76	83

not much here which differentiates the groups. As in previous instances, both the upper and lower groups often exceed or tie the total group. The good showing of the lower group in knowledge of musical literature may bear some relationship to the high figure for concert attendance claimed by its members.

Outcomes

Findings on the first objective.—In general, the requirements of the first objective, which was to obtain as much information as possible about incoming Conservatory students, are met in the columns labeled "total" in the preceding tables. It is true that percentages representing averages do not tell the whole story. An average merely locates the center of gravity of a mass, and its representative percentile rank makes it comparable. An average is an abstraction, and abstractions necessarily omit detail. Yet the central, skeletal outline of a picture can be drawn in terms of averages.

It can therefore be said that the hypothetical average student entering the Peabody Conservatory has certain characteristics. He (or she) will be mature for college entrance, both in chronological age and physical proportions. He probably has several brothers or sisters; it is doubtful that his mother has any occupation outside the home; his father has a profession or a business, though there is one chance in five that the father is a skilled worker. The chances are four to one against there having been any professional musical accomplishment in his family. He probably graduated from a large high school in urban surroundings, where he had relatively rich musical experience. Academically he leans toward literature and languages, and evinces a distaste for mathematics. He has probably studied two foreign languages, and there is one chance in five that some language other than English was spoken in his home. There is a three to two probability that he is a piano or voice major; his choice of some phase of performing or some phase of teaching as an ultimate objective is about evenly divided. He has had almost seven years of formal musical preparation, though its intensity may vary greatly. His experience has been amateur, and centers around school or church. He has had the benefit of attendance at about fifteen concerts during the year preceding Conservatory entrance. He most probably has a hobby or non-musical interest of some kind. His intelligence, as measured, is that of the average college student. His measured preference is highly and decisively musical. As measured, his personality is a normal one. The chances are high that his musical capacities are adequate.

Findings on the second objective.—In view of the small numbers of students involved, differences between the upper and lower groups in any one characteristic should necessarily be substantial to receive consideration as true differences. Consequently the foregoing data reveals but faintly the

hoped-for patterns differentiating the groups, which constituted the second objective of the study. This does not reflect on the validity of the various tests employed. Quite possibly they measure the things they purport to measure. Since there is so little difference between the groups, and since they even resemble each other in some respects, it seems likely that the crucial functions have not been tested, at least not adequately. Apparently the Conservatory entrance requirements are such as to screen out practically all of the musical and academic incompetents, so that the differences which might logically be anticipated do not appear. Sex seems to be one important factor where success is concerned: the women of the upper group constitute 16 percent of all the women, whereas the men of the upper group account for but 9 percent of all the men. The normal expectation would be 12 percent for each sex. The inferiority of the feminine intelligence in this group, as measured, lends interest to these figures.

A recapitulation of all the characteristics common to both groups or found in one or the other might help to clarify the situation.

Both Groups

Students from smaller families than total group.

Distaste for mathematics.

Linguistics intelligence factor higher than total group.

Musical preference high.

Little difference in music test scores.

Upper Group

Higher ratio of women to men.

Double the number of students with no brothers or sisters as compared with total group.

More students from larger communities.

No composition majors.

Quantitative intelligence factor higher.

Women inferior in measured intelligence to men of lower group.

Mechanical, computational, and clerical preference higher.

Lower Group

Men average two years older.

Fathers slightly older than in other groups.

Foreign language spoken in two homes out of five.

Dearth of orchestral performers.

Less preparation.

Half the interest in athletics and sports found in the upper group.

Measured intelligence slightly less than upper group.

Evidence of greater maladjustment with respect to home and health.

More evidence of emotional disturbance.

Is it to be concluded on this evidence that student failure is due to (a) inferior background, (b) slightly inferior intelligence, (c) a narrower spread of interests, (d) home or health difficulties, and (e) emotional disturbance? The most immediate answer to this question may be found in the list of reasons catalogued by the Conservatory administration as causing the failure of the 28 students selected as members of the lower group. They are summarized in Table 19.

This list substantiates to a remark-

TABLE 19. REASONS GIVEN FOR FAILURE OF 28 STUDENTS *

	Men	*Women*
Personality or emotional difficulties	9	10
Insufficient ability	2	2
Home difficulties	3	1
Inferior background or preparation	1	1
Health	1	0

*Two causes each are listed for two students.

able degree the suggestions derived earlier from the test and questionnaire data. Disagreement occurs with respect to health and home difficulties; they do not appear in the amount suggested by the Bell test. In those instances where insufficient ability is indicated, the test results are spotty. Two cases tested as having low intelligence, one was better than average, and one was quite high. The Seashore test scores were inconclusive, ranging from very low to very high within the record of each student. The experimental music test identified deficiencies in much more positive terms.

Conclusions

As a result of this study, which involved the administration of a questionnaire and certain tests to 348 students entering the Peabody Conservatory of Music over a three-year period, a number of conclusions seem fairly well established:

(1) The present admission procedure of the Conservatory does an efficient job of screening talent. Few student failures result from lack of musical capacity.

(2) A psychological screening of applicants would be highly desirable. Most student failures result from personality deficiencies.

(3) The tests employed touch upon crucial areas, but do not adequately measure them. Recommendations would include (a) the continuation of an intelligence test, (b) development of the *Harrower Multiple Choice Test* or the adoption of another test in the field of personality, and (c) further development of the experimental music test or the adoption of another which is valid for the purpose of talent screening.

An additional outcome of this study is a picture of the average Conservatory student drawn in broad but well defined lines. The presence of a substantial number of veterans, especially in the 1947 class, no doubt altered the perspective of those lines from certain viewpoints. The averages for age, height, weight, family size, and parents' occupations reflected the burden of veterans' statistics. Beyond this, however, it seems reasonable to regard the veterans simply as an additional number of people with musical aspirations, some of whom happened to attend the Conservatory by virtue of government beneficence. The clinching argument for regarding the veterans in this light lies in the fact that the Conservatory standards were in no way altered to accommodate them. There was no discrimination for or against the veteran student which would disqualify him for the purposes of this project.

In evaluating this or any effort to measure potentiality, it must be recognized that the development of a talent involves many complexities. Some individuals mature slowly, while some give early promise and then reach an artistic dead end. The effect of living in a new environment and the impact of the Conservatory or of a particular teacher on a student are among other imponderables. Home conditions and their influence are not always understood. These are problems common to many institutions of higher learning, but the nature of musical study gives them a particularity and individuality not found in every field. The prediction of "suitability, desirability, and accomplishment" in musically ambitious young people is yet something less than an exact science. It deserves further attention.

Baltimore Public Schools

A Comparative Study of Two Methods of Teaching Sight Singing in the Fourth Grade

DORIS HUTTON

Introduction

THE PROBLEM of teaching children to read music at sight is as old as the music program itself. Many systems have been employed in the effort to teach this rather complicated skill. Chief among them have been the shape note, the fixed do, and the movable do systems. Singing with scale step numbers and scale letter names may be considered as variations of the last named. Still another system used involves the utilization of neutral syllables.

However, no system has ever been completely successful when pupils lacked the musical background necessary to comprehend the significance of the various musical symbols and the space relationships of tones. Unless the individual student has developed a basic musical vocabulary and has through long association acquired an understanding of the significance and purpose of the more common musical symbols, he is likely to understand very little of their relationship to sight singing.

In both the reading of words and of music from a printed page, the progress of the student depends to a great extent upon his background. The student must have an accumulation of experiences which will serve as a framework into which the unfamiliar must fit before it can be understood.

Musically, most students lack the basic framework. Before a student can understand such an abstract, complicated problem as that encountered in reading music, the teacher must, by some means, build into the child's experience a framework of concepts that will relate each new problem to something already known.

Use of Audio-Visual Materials

One effective means of supplying the pupil with the necessary background experiences is through the use of audio-visual materials such as films, slides, filmstrips, and recordings. Each of these tools has its own unique possibilities for stimulating musical learning, and its use is pyschologically sound. Visual materials often simplify the learning process and diminish the effort required to understand abstractions. The term visual instruction has reference to a particular technique employed to convey information to the student through the sense of sight. Psychologically, the technique of visual instruction is based on the principle that a clearer concept is formed of something one sees than of that which one reads about or discusses. The use of visual materials as a means of supplying background experiences is particularly applicable to the field of music. When the average child begins school he has had little contact with music, other than music from the juke box, the radio, or the church. Musical

experiences are often denied children by reason of their socio-economic status.

Some of the advantages of using audio-visual materials in the music program are given by Nickerson:

> . . . The selective character of experience contained in the aid, if dictated by worthy educational purpose, will tend to brighten as well as broaden experience. Again the organization given this selected experience, particularly in the sound film and slide film with recording, can develop the quality of musical experience and learning even beyond the usual musical contact. . . . These aids form the magic carpet by which a youngster can be completely removed from the four walls of the classroom. As libraries of recordings, films, film strips, slides, and radio-transcriptions expand and as teachers become better able to exploit their potentialities, there will be few, if any, elements of musical contact inaccessible to students. The opera, the music hall, the folk singer, the major artist, the choicest symphony, the name band, the cathedral choir—each will be close personal experience to every boy and girl. . . .[1]

When children have the advantages of the experiences mentioned above, they become increasingly sensitive to the beauty in music. Recognizing the inherent beauty of music tends to stimulate and quicken the child's musical imagination and thereby serves as a means of motivating and enriching his musical growth.

Experimental Studies

Experiments have been conducted in practically every field and level of the school curriculum to determine the effectiveness of visual and audio-visual materials.[2] Most experiments have been carried out through the use of a control group and an experimental group. In the field of music several such experiments have been completed with visual and audio-visual techniques and materials.[3] The data obtained indicate that distinct contributions to learning are to be gained from the use of audio-visual materials.

In the light of conclusions drawn from such studies, it is an unfortunate fact that less than ten percent of the teachers in the United States (this includes classroom teachers as well as special teachers) are trained in the use of audio-visual materials.[4] Apparently the reason for this is that very few colleges and universities offer adequate training in the use of such materials. Music teachers, as a whole, have not taken advantage of the opportunity when it was presented.

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[1]James F. Nickerson, "The Magic Carpet of Music Education," Music Teachers National Association, *Proceedings*, 1947, p. 106.

[2]W. A. Bonwell, "The Efficiency of Visual Education in the Teaching of First Grade Reading," unpublished master's thesis (Leland Stanford University, 1933). James J. Gibson, ed., *Motion Picture Testing and Research*, Report No. 7, Army Air Forces Aviation Psychology Program Research Reports (Washington, D. C.: Government Printing Office, 1947). Dudley Grant Hayes, "The New Deal and Visual Aids," Department of Elementary Principals, N.E.A. Bureau of Publications, *Thirteenth Yearbook* (New York: Teachers College, Columbia University, 1934), p. 145. Cortell K. Holsapple and Warren Wood, "The Use of Audio-Visual Aids in Teaching Freshman English," *College English*, XIII (March 1952), 324-326. Carl I. Hovland, Arthur A. Lumsdaine, and Fred Sheffield, *Experiments on Mass Communication* (Princeton, New Jersey: Princeton University Press, 1949).

[3]V. C. Arnspiger, "The Relative Effectiveness of the Sound Motion Picture in Teaching Elementary Science and Music," *Education*, LIII (February 1933), 333-334. Ellen Gibson, "40,000 Children Learn Do, Re, Mi," *Educational Music Magazine*, XX (March 1941), 33. Lester R. Wheeler and Viola D. Wheeler, "The Relationship Between Music Reading and Language Reading Abilities," *Journal of Educational Research*, XLV (February 1952), 443-446.

[4]Floyd E. Brooker, "Trends in Audio-Visual Education," *School Executive*, LXIX (September 1949), 42.

Research in a wide variety of fields, including music education, has indicated that the use of audio-visual materials enhances the learning process to a considerable degree; hence, it was considered desirable to conduct an experiment to determine the effectiveness of such materials in teaching sight singing to students at the elementary school level. A plan was developed to test the effectiveness of utilizing audio-visual materials to help solve special problems, to enrich the text, and to make clear those ideas, facts, and concepts the pupil encounters in learning the technical aspects of music.

Scope of the Present Study

Since music itself is an audible phenomenon and the materials used for this study were almost exclusively visual in nature, the term audio-visual is applicable only in its broadest sense. The use of the music score, a visual device, was common to both the experimental and control groups, hence the expression "special visual materials" is used to designate those teaching aids employed exclusively with the experimental group.

The study as a whole was designed (1) to compare two methods of teaching sight singing to fourth grade pupils, (2) to show the relationship of verbal reading ability to music reading ability, (3) to show the relationship of previous musical experiences to sight reading ability, and (4) to evaluate two methods of teaching by comparing the scores of initial and final tests.

The experiment was conducted during the school year 1949-1950 in an elementary school of Austin, Texas. Two alphabetically sectionized groups of fourth grade students participated. Section A formed the experimental group with which the special visual materials method was used and Section B constituted the control group, whose work was conducted without the use of any type of special visual materials.

The fourth grade pupils who participated in the experiment represented a cross section of Austin's middle-class families. The school district included most of an old, established subdivision and in this area resided those who were employed in a variety of common trades: carpenters, plumbers, painters, paperhangers, automobile mechanics, bus drivers, and state hospital employees.

At the beginning of the school year both groups were given an individual sight reading test of the Bach chorale, "Oh, Morning Star," from *New Music Horizons,* Book Four, page 84. This song contained forty-seven notes, the intervals of the second, third, fourth, fifth, and the octave. The tune made use of the ascending and descending scale. Other items found in the score included the fermata, the double bar and the repeat sign. The fermata occurred at the end of each of the four phrases of the song.

At the end of the year the test was repeated. The pupils had not in the meantime sung this song, nor had any reference been made to it. By a comparison of scores of the initial and final tests, a measure of increased sight singing ability was determined.

Scores from other tests, musical as well as nonmusical, were used to compare an individual's sight singing ability with such factors as word reading achievement, intelligence quotient, previous musical experiences, musical ability, and the desire to perform with a musical instrument.

Five tests were employed in compiling the statistics for the study:

1. Individual sight reading test

2. *Jones Music Recognition Test*
   Carl Fischer, Inc.
   New York, New York

3. *Tilson-Gretsch Musical Aptitude Test*
   Fred Gretsch Music Company
   New York, New York

4. *New California Short-Form Test of Mental Maturity*
   Elementary '47 S-Form
   California Test Bureau
   Los Angeles, California

5. *Metropolitan Achievement Test*
   Elementary Battery: Form S
   World Book Company
   New York, New York

During the experimental period, both classes studied the same new songs, sang the same old songs, danced the same folk dances, and listened to the same recordings.

The results of the tests listed above, including the initial sight singing test, were used to select two equivalent groups of twenty pupils each, one representing the control group and the other the experimental group. Data are presented showing the equivalence of the two groups at the outset of the test program and the significant difference in sight singing ability that existed between the two groups at the end of the experimental period. The data were also analyzed to determine if a correlation exists between music sight reading ability and reading achievement at the fourth grade level.

Experimental Procedure

In the teaching of music reading two methods of approach were used. The control group was taught sight reading without the use of any special visual materials. In a few instances, the staff was drawn on the blackboard to illustrate the relative distance between notes. The experimental group was taught sight reading with the aid of flash cards, musical games, and slides used with the opaque projector. The flash cards used contained all of the intervals of all of the songs taught during the year. These cards had as few as two notes or as many as six. The musical game was one similar to Bingo. Musical symbols were on each card and the students became familiar with these symbols through repeated playing of the games. The slides that were used with the opaque projector contained the music to simple folk tunes such as "The Farmer in the Dell," "Mary Had a Little Lamb," "Three Blind Mice," "London Bridge Is Falling Down," and others of like nature. The title as well as the words were omitted from each slide.

The above mentioned materials were used as much as possible during the music class time of the experimental group. Drill was conducted through the use of the flash cards and the music slides. Pupils were asked to sing back to the teacher the music that appeared on the cards and slides. At first, the class sang these drills; later as assurance was developed, individuals sang back to the teacher. When new songs were learned, the work done during the drill period was related.

The sight singing tests were conducted in the following manner: the beat was established by tapping on a desk, the pitch of the first note was given, and the pupil sang the tones with the neutral syllable "la." Because of the rhythmic and tonal change of the last two phrases, the pitch was given again at the beginning of the third line. The foregoing procedure was employed once for practice. The second time, the teacher recorded the number of notes the pupil sang correctly. Notes were counted as being correct if they were on pitch and in rhythm. The number

of correct notes sung was used as the pupil's score.

Data Processing

The arbitrary alphabetical division of the fourth grade class into two sections of equal number provided groups which were essentially equivalent in scholastic achievement and socio-economic background. From the two sections two groups of twenty pupils each were selected, who, on the average, exhibited equivalent characteristics, with regard to previous musical experience, musical ability, reading achievement, and intelligence quotient. In selecting the members of the two groups, the results of the tests mentioned as well as supplementary information on the previous musical experience of each pupil were used.

Briefly, the procedure employed in equating the two groups was as follows:

(1) Without recourse to test results or other information, one section was designated as the one from which members of the control group would be selected and the other was designated as the section from which the experimental group would be selected.

(2) All students for whom complete data were not available were excluded.

(3) An analysis of test results was made to select members from each of the two sections who exhibited the same average score on each of the initial tests.

(4) All students who exhibited consistently large deviations from the norm on the various tests were excluded.

Any reference to the control and experimental groups in the discussion to follow will be taken to mean the twenty-member groups as outlined above.

The significance of the mean of the differences of the test scores of the two groups was used to determine the degree to which the groups were initially equated. Fisher's table of t (abridged) for tests involving small samples was used as a basis for accepting or rejecting the null hypothesis. The same procedure was employed to determine the probability of there being a sufficiently significant difference in the means of the experimental and control group scores to satisfy a conclusion that the introduction of the experimental factor resulted in a marked difference in the assimilation of sight reading ability between the two groups. The rank-difference correlation method was employed to determine if there exists a correlation between music sight reading ability and reading achievement at the fourth grade level based on test results of this study.

Results

The results of the analysis of initial test scores of the two groups are shown in Tables 1 and 2. The values of P show that there exists a probability greater than .90 that the acceptance of the null hypothesis was valid with regard to initial sight reading ability, reading achievement, and intelligence quotient. The comparison of the two groups on ability to recognize familiar tunes as determined by the *Jones Recognition Test* indicates less equality between the two groups; however, the difference observed may be considered the result of chance variations.

Table 2 illustrates the equality of the two groups based on results of the *Tilson-Gretsch Music Ability and Aptitude Test*. The ratings of superior, excellent, very good, average, below aver-

TABLE 1. RESULTS OF ANALYSIS OF INITIAL TESTS

Test	M_e	M_c	M_d	σM_d	t	P
Initial Sight Reading Test	8.215	7.710	0.505	4.92	0.1026	.90
Verbal Reading	4.75	4.81	–0.065	0.385	–0.1688	.80
Jones Musical Recognition Test	508.8	606.1	–4.865	3.99	–1.213	.30
Intelligence Quotient	105.7	106.5	–0.75	3.42	–0.219	.80

M_e — Arithmetic mean of experimental group
M_c — Arithmetic mean of control group
M_d — Arithmetic mean of algebraic difference between the individual scores of the experimental group and those of the control group
σM_d — Standard deviation of the mean of the difference
t — Critical ratio, $M_d/\sigma M_d$
P — Probability of occurrence of an absolute value of t as large as or larger than the one determined on the basis of chance variations

TABLE 2. RESULTS OF TILSON-GRETSCH MUSIC ABILITY AND APTITUDE TEST: THE NUMBER OF STUDENTS IN EACH GROUP WHO ATTAINED THE LISTED RATINGS

Rating	*Control Group*	*Experimental Group*
Superior	1	2
Excellent	3	3
Very Good	3	3
Average	9	9
Below Average	2	2
Poor	2	1

age, and poor, which were peculiar to this particular test, prevented their inclusion in the numerical analysis shown for the other test data.

There was an equal number of boys and girls in the two groups, eight and twelve in each group respectively. Twice as many students in the experimental group had taken some form of private instruction with a musical instrument as those in the control group; however, this number comprised less than 50 per cent of the group and apparently had little effect on their ability to read vocal music at sight when consideration is given to the results of the initial sight reading test. It is perhaps significant to note that only one member of the two groups had had voice lessons, this student being a member of the control group. Musical instruments were in the homes of 50 percent of the experimental group and 55 percent of the control group. From the results shown above, it may be concluded that the two groups were satisfactorily equated prior to the introduction of the experimental factor.

Table 3 shows a tabulation of the initial and final sight reading test scores of the students of the two groups. A comparison of results of the final sight reading test for the two groups shows a significant difference between the two. The analysis of data gives a critical ratio, t, of 2.3 as compared to 0.1 for the initial test, and a probability, P, of .03 as compared to 0.8 for the initial

test that acceptance of the null hypothesis would be correct.

A comparison of the arithmetic means of the initial and final scores of each of the groups shows that on the average the members of the experimental group increased their level of sight reading ability by a factor of three over the increase evidenced by the control group, the increase in the mean score for the experimental group being 14.1 points and that of the control group 4.2 points. The mean scores for the two groups on the final test shows that of the experimental group to be greater by a factor of 1.9, while the average deviation from the mean for each group is virtually the same, 12.4 for the experimental group and 12.5 for the control group.

TABLE 3. INITIAL AND FINAL SIGHT READING TEST SCORES

	Control Group		*Experimental Group*	
Student Number	*Initial Test*	*Final Test*	*Initial Test*	*Final Test*
1	0	8.5	0	25.6
2	0	0	0	55.4
3	0	4.3	0	8.5
4	2.5	0	0	0
5	0	25.6	8.5	42.6
6	10.7	0	8.5	25.6
7	46.9	63.9	0	29.8
8	0	0	0	0
9	6.4	4.3	2.1	14.8
10	27.7	23.4	0	8.5
11	21.3	36.2	0	14.9
12	0	0	19.2	23.4
13	0	4.3	8.5	34.1
14	0	17.0	4.3	29.8
15	6.4	0	0	4.3
16	12.8	2.1	8.5	4.3
17	0	25.6	8.5	25.6
18	8.5	8.5	21.3	31.0
19	8.5	4.3	2.5	25.6
20	2.5	10.7	72.4	42.6

The results of the test for correlation between music sight reading ability and reading achievement were not conclusive. The correlation coefficient determined for the experimental group was —0.18, which, had it been significantly different from zero, would have indicated an inverse relationship between music sight reading ability and reading achievement.

The results of the test for correlation using the data from the control group tests were just as inconclusive. The correlation coefficient determined in this case was 0.43, which would indicate a tendency toward positive correlation between music sight reading ability and reading achievement; however, as in the case of the experimental group, the coefficient was not different from zero to a degree significant enough to conclude that any correlation existed between the two sets of data.

These results are in reasonable agreement with those of Wheeler,[5] who reports correlation coefficients of the order of 0.3 for studies of the relationship between the skills involved in reading music and those involved in reading language.

Conclusions

Some of the more important conclusions of the study may be summarized as follows:

(1) A significant increase was apparent in the sight reading ability of both the control group and the experimental group.

[5]Wheeler and Wheeler, p. 443.

(2) A pronounced difference in music sight reading ability was apparent between the experimental and the control groups; the experimental group made a significantly higher average on the final sight reading test.

(3) On the basis of data obtained and analyzed in this study, it is considered highly probable that the use of audio-visual materials in the teaching of music sight reading to students of the fourth grade level will accelerate the learning process to a significant degree.

(4) No positive evidence is available to indicate any correlation between music sight reading ability and reading achievement at this level; indeed, the results indicate no correlation whatever.

A detailed study of the data from the two sections of the fourth grade, including all students from both sections, yields certain other interesting comparisons pertinent to this experiment:

(1) Nine pupils of various ranks in the two groups lost rather than gained in sight reading ability. Such factors as emotional disturbance, illness, lack of attention, or other extraneous influences at the time the final test was given should be considered as a probable cause for the loss in rank.

(2) Pupils ranked at or below grade level in the experimental group made higher final scores than did those of the same levels in the control group.

(3) The use of special visual materials aided three students at or below verbal reading grade level more than it did those of above grade level.

(4) Special visual materials aided the comprehension of pupils who were average or below average in musical ability more than it did those of superior musical ability.

(5) Those students in the control group who ranked below average on the *Tilson-Gretsch Test* made less gain during the year than did those of the same rank in the experimental group.

(6) With the exception of three students, those who rated superior or excellent on the *Tilson-Gretsch Test* had had private music lessons.

(7) Sixty-seven percent of all the pupils involved in this study had had no previous musical experiences through private lessons.

(8) Fifty-nine percent of the homes possessed a musical instrument; the most common was the piano.

(9) The results of the *Jones Musical Recognition Test* indicated that the majority of the students concerned in this study had a background of listening experiences.

(10) Lack of musical ability did not hinder the pupil's ability to recognize familiar tunes when reproduced on the piano.

The results obtained from the present investigation have been promising enough to justify the continued use of visual materials at this level.

Austin Public Schools, Texas

The Organization and Development of the Sectional Conferences

JOHN W. MOLNAR

ONE OF the significant evidences of the growth and expansion of the Music Supervisors National Conference (now the Music Educators National Conference), following the establishment of the National Conference on a firm footing, was the organization and development of the sectional conferences, which occurred between 1919 and 1926. This step was a logical one in the history of the national organization.

The importance of forming sectional groups was discussed as early as 1916, at the National Conference meeting at Lincoln, Nebraska.[1] Considerable thought was devoted to the problem at that time and thereafter. The possibility of organizing an Eastern conference was discussed by music teachers of the Eastern states at many of their meetings.[2] These discussions bore fruit in the establishment of the Eastern Music Supervisors Conference, which met for the first time in 1918. The dissatisfaction which impelled the formation of an Eastern group arose from the fact that only a small number of persons from the East ever were able to attend national meetings on account of the expense involved and the time consumed away from their teaching duties; the National Conference rarely held meetings in the East, but stayed in the Midwestern portion of the country.[3] The annual meeting places of the Conference, until 1918, were as follows: 1907, Keokuk, Iowa; 1909, Indianapolis, Indiana; 1910, Cincinnati, Ohio; 1911, Detroit, Michigan; 1912, St. Louis, Missouri; 1913, Rochester, New York; 1914, Minneapolis, Minnesota; 1915, Pittsburgh, Pennsylvania; 1916, Lincoln, Nebraska; 1917, Grand Rapids, Michigan; and 1918, Evansville, Indiana. Eastern leaders in music education, therefore, felt that in order to meet the needs of music educators of their section of the country and to reach the great majority through a closer meeting place, a conference should be organized nearer them.

The Eastern Conference was founded, not as a division of the national group, but as an entirely independent body. The supervisors and teachers who started it were members of the National Conference, but the new organization's only connection with the national group was through the common membership of its most active members.

The purposes of the Eastern Conference were set forth in its constitution. They were threefold: (1) educational, in placing before its members the most approved pedagogical thought relating

[1]Glenn H. Woods, "Letter to the Editor," *Music Supervisors Journal*, XI (December 1924), 52-53.

[2]Howard C. Davis, "Greetings from the Eastern Conference," *Journal of Proceedings of the Twelfth Annual Meeting of the Music Supervisors National Conference* (Bloomington, Illinois: the Conference, 1919), pp. 86-89.

[3]Davis, p. 87.

to their own and kindred professions; (2) protective, in bettering teaching conditions and extending the sphere of influence of its members through the prestige of the organization; and (3) social, in promoting fellowship among its members.[4]

The new organization grew rapidly. By 1925 it had attained a membership of about eight hundred, and was publishing a yearbook and a journal, the *Eastern School Music Herald,* which appeared eight times yearly. The organization of the conference was similar to that of the National Conference at the time; the constitution provided for the same array of officers, an advisory council, a board of directors, and state chairmen.

The activities of the Eastern Conference centered around its three major purposes. Efforts were made to obtain (1) more time for music in the curriculum of the school, (2) better training for supervisors and teachers of school music, and (3) increased salaries for music educators.[5] The Eastern Conference also concerned itself with problems peculiar to the East, as, for example, the combating of Eastern conservatism in regard to school music.[6]

At the first meeting of the Eastern Conference, a statement was issued to the effect that one of the cardinal principles of the organization should be that of a spirit of cooperation with the national group.[7] As a result, leaders of the Eastern Conference continued their participation in the affairs of the National Conference, while officers and leaders of the National Conference appeared frequently on the programs of the new group. The national officers felt a real need for the sectional type of conference as well as for the national, and they did much to aid the new venture. For example, the *Music Supervisors Journal* published the complete programs of the Eastern Conference meetings as an aid in increasing the membership growth and the attendance at the meetings of the Eastern society. Beginning with the 1922 issues, the editors of the *Journal* devoted an entire section to news concerning activities of the Eastern Conference.

However, despite the best of intentions, and despite the cooperative efforts made by leaders of both groups, a certain amount of mutual suspicion and rivalry continued to prevail between Eastern and Midwestern educators, prompted largely by the Midwestern character of the older organization,[8] especially as evidenced by its failure to take national meetings into Eastern territory. In an attempt to pour oil on troubled waters, Peter W. Dykema declared in an editorial that the leaders of both groups had no feelings of animosity.[9] Another source of at least some friction was the duplication of functions between the two groups. Suggestions for the unification of the two conferences, in order to eliminate this waste of effort, appeared as early as 1922.[10]

The policy of the National Conference in respect to the establishment and development of sectional and even smaller music education groups was outlined by the Council of Past Presidents in recommendations offered to

[4]Davis, p. 88.

[5]"The Eastern Conference," *Music Supervisors Journal,* VII (September 1920), 6.

[6]Davis, p. 88.

[7]Davis, p. 86.

[8]Russell Carter, "The Sectional Conference Plan," *Music Supervisors Journal,* XI (October 1924), 44.

[9]Peter W. Dykema, "Editorial," *Music Supervisors Journal,* VIII (December 1921), 6.

[10]George O. Bowen, "Editorial," *Music Supervisors Journal,* IX (October 1922), 4.

the National Conference at the Philadelphia meeting of 1920, at which meeting a joint session of the National and Eastern conferences was held. The recommendations were as follows:

> . . . Every effort should be made to expand the national aspects of our Conference. The Committee suggests the desirability of emulating other departments of instruction which have strong national organizations, but also, under the same officers, maintain sections in the National Education Association, as well as state organizations, which function as parts of the state educational organizations. The National Federation of Music Clubs and the General Federation of Women's Clubs have similar plans of organization. . . .
>
> (2) That the Conference, in its membership, officers, and places of meeting take care of all sections of the country.
>
> (3) That we urge our state committees to form and strengthen state organizations of those interested in school music.
>
> (4) If any group of such state organizations or any group of supervisors not organized shall deem it expedient to organize as a sectional group, that any and all such organizations shall have the hearty support and good will of the national body.
>
> (5) Any relationship between the national and sectional groups shall come only on the initiative of the latter.
>
> In conclusion, we wish to reaffirm our belief that the best policy of the Music Supervisors National Conference is to continue its national work for high standards, better coordination, and stronger organization for effective service to the twenty-three million children of our public schools.[11]

The Southern Conference for Music Education was organized at the Nashville meeting of the National Conference in 1922, as a direct result of the enthusiasm engendered among Southern music educators caused by the meeting of the national organization in Southern territory. The charter members of the new group felt, as had the Eastern music teachers, that only through the development of a conference among themselves could they meet their unique and pressing problems.

Familiarity with the jealousy and animosity which existed between many members of the national and Eastern groups probably prompted the charter members of the Southern Conference in stressing that the new organization was to function purely as a branch or section of the national organization and was to articulate its activities with those of the national group in as many ways and as definitely as possible.[12] Instances of this articulation include the fact that the group scheduled meetings during December or January in order to avoid any conflict with national meetings and that the *Music Supervisors Journal* was recognized as the official organ of the new organization. The concept of one unified conference, with sectional and state groups forming constituent yet semi-independent parts, here makes its first appearance; in organization, however, the two conferences remained entirely independent of each other.

Forty members were present at the first meeting of the Southern Conference, held in Atlanta, December 14-16, 1922. Problems which held the attention of the members included the short school term, lack of money and equipment, and the narrow policy of the Southern Association of Schools and Colleges toward the accrediting of music in the schools.[13] The conference

[11] Peter W. Dykema, "Report of the Council of Past Presidents," *Journal of Proceedings of the Thirteenth Annual Meeting of the Music Supervisors National Conference* (St. Louis, Missouri: the Conference, 1920), pp. 176-177.

[12] "The Southern Conference," *Music Supervisors Journal*, VIII (April 1922), 22.

[13] "The Southern Conference," *Music Supervisors Journal*, IX (February 1923), 27.

grew in size and scope of activity, but not to the same extent as did the Eastern. No separate publications were issued. The membership increased each year but did not exceed four hundred until after the reorganization of the conferences and the establishment of the biennial plan of meeting in 1926.

Duplication of effort continued to be a source of friction among the three conferences. This was most noticeable in the work of standing committees and in group publications. The work of the committees included the study of existing conditions in the field of music education, the struggle for the recognition of music as an integral part of the curriculum, the development of techniques of teaching and the raising of standards, the encouragement of the publishers in producing music for school use, biographical studies, standardization of the instrumentation of concert bands, and the compilation of lists of music and other teaching materials. Many of these problems were really national in scope, and the adherents of the National Conference felt that the power, prestige, and better facilities of the larger group would place it in a far better position for this type of work. But they also felt that the sectional conferences had an important role to play in reaching teachers who were unable to attend the meetings of the national group, and in aiding them in their specific and more local problems.

Development of the Biennial Plan of Meeting

The organizational framework of the National Conference evolved as the need for certain agencies and committees arose. The sectional conferences had the benefit of the experience of the national group in setting up their organizations. The growth of the three groups, paralleling each other in many respects, inevitably resulted in a closely woven pattern, and finally suggested, then demanded, the adoption of the biennial plan of meeting.

The problem of the relationship between the conferences and a means of uniting them were discussed at length at the 1923 meeting of the National Conference, but nothing of a concrete nature came forth.[14] During the following year, the matter was discussed at even greater length and with some heat in the pages of the *Journal*. The Committee on Sectional Conferences studied the problem, and the results of its deliberations were presented to the 1924 meeting.

The report included the following proposals: (1) the National Conference would meet in alternate, even-numbered years; (2) the sectional conferences would meet in odd-numbered years; (3) the conferences would remain practically independent of each other, the interrelationship consisting of an interlocking board of directors and committee set-up, and the apportionment of dues; (4) the *Journal* of the National Conference would become the official journal of all the conferences; and (5) the *Journal of Proceedings* to be published during the odd-numbered years would contain material from the sectional conferences.[15] The machinery of organization was kept as simple as possible, in order to make the plan more workable.

The committee recommended that at

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[14]Peter W. Dykema, "Report of the Committee on Sectional Conferences," *Journal of Proceedings of the Sixteenth Annual Meeting of the Music Supervisors National Conference* (Tulsa, Oklahoma: the Conference, 1923), p. 236.

[15]Peter W. Dykema, "Report of the Committee on Sectional Conferences," *Journal of Proceedings of the Seventeenth Annual Meeting of the Music Supervisors National Conference* (Tulsa, Oklahoma: the Conference, 1924), pp. 352-356.

least one year of discussion, buttressed by explanatory articles in the *Journal*, precede any definite action on the part of the National Conference with regard to the plan of action proposed. It further recommended that the National Conference should transmit the plan after its adoption to the sectional conferences for action.

The proposed plan caused a great deal of intensive and heated argument. Many older members felt that the national group should continue to meet every year, maintaining that the benefit derived from annual meetings was too great to let go. Others felt that the plan was forward looking, and that it would strengthen the work for school music throughout the country. They were willing to try the biennial plan of meeting, even to support it with national funds. They believed that, instead of weakening the national organization, the plan would actually strengthen it, due to the increased number of supervisors and teachers who would be brought into the conference movement through the organization of the sectional groups. The latter group was correct, as subsequent events proved.

Peter W. Dykema was asked by National Conference President Edgar B. Gordon to name his own committee on the reorganization of the conference. Dykema asked the presidents and past presidents of the three existing conferences to serve on the committee. He also asked that two representatives be appointed from each of such groups as were definitely arranging for the formation of a sectional group which would meet in 1927.

This committee submitted a revised constitution, incorporating the points mentioned above, to the 1926 meeting of the National Conference. Dues were to be apportioned as follows: of the $3.00 active membership dues, $1.50 was to go to the newly-created publication fund, seventy-five cents to the treasury of the sectional conference to which the member belonged, and seventy-five cents to the national treasury. The publication fund was to be used to finance the printing of the *Journal of Proceedings*.[16] Nothing was apportioned to the *Music Supervisors Journal*, as that publication was self-supporting.

The National Conference adopted the revised constitution at the 1926 meeting; under it, the 1926 meeting was the last of the annual gatherings of the national group. The Southern Conference enthusiastically adopted the new plan at its meeting in early 1927. The Eastern Conference was more hesitant in its adoption. The members voted for the plan by a rather small majority, and then only under the proviso that the Eastern Conference could withdraw after a trial if the plan proved unsatisfactory.

Expansion of the Sectional Conferences

The officers of the National Conference followed the announced policy in their relationships with the pending sectional groups, in that they waited for the supervisors and teachers of each territory to inaugurate their own organizations. The leading supervisors of those sections of the country not having a sectional conference did considerable preliminary work leading to the organization of sectional groups previous to the 1926 meeting of the National Conference. They felt that the need for a sectional conference in their respective areas was too great for them not to seize the opportunity to establish one in time for a 1927 meeting.

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[16] "Constitution," *Journal of Proceedings of the Nineteenth Annual Meeting of the Music Supervisors National Conference* (Chapel Hill, North Carolina: the Conference, 1926), pp. 6-9.

The In-and-About Chicago Music Club was instrumental in organizing the North Central Conference. The services of the club were offered to the national officers of the conference at the January, 1926, meeting of the Chicago supervisors. Anton E. Embs was made the chairman of a committee to bring the matter to the attention of President Gordon; the latter in turn, officially appointed Embs the chairman of the preliminary meeting necessary to perfect the organization of the sectional conference. A notice in the *Journal*[17] was issued to supervisors in the territory of the new group advising them of the organizational meeting to be held during the national meeting in April.

The establishment of the North Central Conference was accomplished at the 1926 meeting of the National Conference. It embraced the states of Illinois, Indiana, Iowa, Minnesota, North Dakota, South Dakota, Ohio, and Wisconsin. These states had been the most active in the National Conference up to that time, having been hosts to the meetings more often than any other group of states, and having furnished the greater portion of the active membership of the National Conference. It was therefore natural that the North Central Conference should assume a role of great activity and leadership. It has remained the largest of the sectional conferences.

George O. Bowen, the editor of the *Journal* at the time, was instrumental in organizing the Southwestern Conference. He was appointed the chairman of a committee for that purpose at a meeting of the music section of the Oklahoma State Education Association held at Oklahoma City, February 12, 1926.[18] The committee cooperated in the necessary planning with representatives from other states in the territory which were to make up the Southwestern Conference.

The Southwestern Conference also was launched at the 1926 national meeting. It embraced the states of Arkansas, Colorado, Kansas, Louisiana, Missouri, New Mexico, Oklahoma, and Texas. Missouri was originally supposed to be a part of the North Central Conference, but the Missourians felt that their presence was needed more in the Southwestern group, and elected to join that organization.

The Northwest Conference was organized in 1927, in time to hold its first meeting in the spring of that year. This conference included the states of Idaho, Montana, Oregon, and Washington, as well as Alaska and the provinces of Alberta and British Columbia, Canada.

California had an organization of its own for several years and did not affiliate with the National Conference until 1929. In 1931, California combined with Arizona, Nevada, Hawaii and the Philippine Islands to form the California-Western Music Educators Conference.

Necessary changes were made in the administrative organization of the conferences to conform with the demands of the new plan. They were of too detailed a nature for extended study in this article.

The Board of Directors of the National Conference resigned in a body at the 1926 business meeting.[19] This

[17]Anton E. Embs, "Attention, Supervisors!" *Music Supervisors Journal,* XII (March 1926), 68-70.

[18]George O. Bowen, "A Southwestern Music Supervisors Conference," *Music Supervisors Journal,* XII (March 1926), 70-72.

[19]Elizabeth Carmichael, "Minutes of the Business Meeting," *Journal of Proceedings of the Nineteenth Annual Meeting of the Music Supervisors National Conference* (Chapel Hill, North Carolina: the Conference, 1926), p. 272.

action was taken to enable the members of the newly created National Board of Directors to assume their offices. The representatives from the National Conference were elected at the business meeting, and the representatives from the North-Central and Southwestern Conferences had been elected at the organizational meetings of these groups. The Southern Conference representatives had been elected at the annual breakfast meeting of the Southern members who were in attendance at the national meeting, having been empowered to act in that capacity at the Southern Conference meeting of the previous January.[20] The Eastern Conference representatives were not elected until the following year.

The *Music Supervisors Journal* became the official organ and the *Journal of Proceedings* the official yearbook of the United Conferences, as they were now called. The only group affected to any extent by this action was the Eastern Conference, which suspended publication of the *Herald* and the yearbook after that conference voted to enter the new organization.

Reorganization on the biennial plan resulted in great benefits for all groups. Contrary to the expectations of some leaders that membership in the National Conference would decrease, the enrollment actually became larger. The sectional conferences grew rapidly in size and activity because sectional meetings were able to attract many supervisors and teachers who had been unable to attend more remote meetings. As these members of the music teaching profession became interested in the work of the sectional conferences, their interests and activities were expanded to include the National Conference. The duplication of effort on the part of the committees and state chairmen was eliminated.[21]

Summary

In retrospect, the organization of sectional conferences appears a logical outcome of the growth and expansion of the activities of the National Conference. Meetings of a national society are not easily attended by members at a considerable distance from the place of meeting. Moreover, problems of a regional character arise which can best be worked out by persons close to the scene. Sectional organizations might also be expected to strengthen the national organization, provided the work of both groups was integrated.

The first of these regional groups, the Eastern Conference, was formed independently in 1918, as an expression of the feeling that the National Conference was not meeting the needs of the supervisors in the Eastern states. The Eastern Conference developed its own publications and its own meetings. Its organizers belonged to the National Conference, to be sure, and participated in its work, but they did not at first envision any closer relationship than that of "cooperation" with the older body. There is some evidence of bad feeling between members of the National and Eastern Conferences, especially in the early years of the latter organization.

A second regional society, the Southern Conference for Music Education,

[20] L. L. Stookey, "Breakfast Meeting of the Southern Conference," *Journal of Proceedings of the Nineteenth Annual Meeting of the Music Supervisors National Conference* (Chapel Hill, North Carolina: the Conference, 1926), p. 75.

[21] During the decade 1931–1940, the integration of the sectional conferences and the development of the state unit plan led to the adoption of the new constitution in 1940. These matters will be treated in another article.

was organized in 1922. In this case the new organization was developed with the specific intent of articulating its work with that of the National Conference. There was no organic connection with the national body, however.

Duplication of activities, competition for members, and demands upon professional leaders to participate in too many meetings each year led to a movement for integration of the various conferences. After prolonged and vigorous discussion, a plan was carried through in 1926 and 1927 for joint membership in the National Conference and one of the regional conferences, for division of dues, for publications to be centered in the national society, and for rotation in the schedule of national and sectional meetings (national meetings in even-numbered years, sectional in odd-numbered years). It was not altogether easy to secure acceptance of this plan; the Eastern Conference took favorable action only with the proviso that it might withdraw after a brief trial. Once in operation, however, the plan proved highly successful.

Other sectional conferences were established in due course, in each case local leaders working with National Conference representatives to effect the organization. These new conferences, with the dates of establishment, were the North-Central, 1926; the Southwestern, 1926; the Northwest, 1927; and California in 1929, becoming the California-Western in 1931.

Longwood College

Corrections

Typographically speaking, the first issue of the JOURNAL OF RESEARCH IN MUSIC EDUCATION was, at any rate in the eyes of its editors, a thing of joy and beauty. Nevertheless, the fact must here be admitted that a small number of errors of one sort and another somehow slipped through our most careful scrutiny. While most errors were minor in nature and need only be forgotten, two at least require immediate correction. The most serious is to be found at the bottom of the first column on page 58, where the sentence beginning "At Eastern Illinois State College . . ." should actually read "At Illinois College . . ." Librarians and others possessing copies of the first issue are earnestly requested to ink out the words *Eastern* and *State*. Illinois College is located at Jacksonville and is one of the oldest institutions of learning in Illinois. Eastern Illinois State College, on the other hand, is located at Charleston and maintains one of the finest departments of music in the state. For this misleading confusion of names, the editors extend their most sincere apologies to Earl Boyd, the author of the article in which the error occurred, to the institutions concerned, and to all of our readers.

Another error, much less serious in nature, but which all librarians and bibliographers will want to correct in their copies, occurs in Table VIII on page 55. Here the assigned dates for Editions *G* and *I* have been transposed. Edition *G* should be dated [1809] and Edition *I* should be dated [1810].

A List of State Music Education Periodicals

J. J. WEIGAND

THE VARIOUS periodicals published by the state music educators associations constitute one of the most important records of the development of musical programs in the public schools of the United States. In these publications, most of which began modestly as news bulletins prepared for the purpose of disseminating information concerning contest dates and regulations, and which range in format from mimeographed sheets to full-fledged magazines containing articles and illustrations, the future historian will find the all-important names, dates, and other factual information which comprise the foundation stones of history. By consulting successive issues, he can trace the origins and growth of our professional viewpoints, aspirations, and accomplishments.

The officers of all affiliated state organizations had opportunity to check the listings given here shortly before this issue of *JRME* goes to press, and the listings have been corrected in accordance with information supplied as of September 30, 1953.

Most of the periodicals listed are described in detail but for some complete data are lacking. On the basis of the responses received from state association officers, seven states do not have, or presently plan for, an official music education periodical. The writer will appreciate receiving additional information concerning all publications, and needs particularly actual copies of recent issues for further examination. Information regarding the location of complete files of the periodicals listed will also be very gratefully received. In order that adequate files accessible to scholars may be built up in the future, all state editors might be sure to include both the Chicago and Washington offices of the MENC (see inside back cover) on their mailing lists, as well as the libraries of colleges in adjacent areas.

In addition to the name and sponsorship of each periodical examined, certain other information is given which should be of value to researchers, writers, advertisers, and others. This information includes the name of the editor as given in the most recent issue obtainable, or as supplied by state association officers. Then follows the date of that issue, its volume number, pagination, and dimensions. If available, information is given regarding whether or not advertising is accepted, whether or not articles are accepted, and the cost of a separate subscription. (It is assumed that in each instance all active members receive their state periodical.)

ALABAMA: *The Alabama Music Educator*. Official publication of the Alabama Music Educators Association. Editor: John G. Hoover, State Teachers College, Livingston.

ARIZONA: *AMEA News Bulletin*. Official publication of the Arizona Music Educators Association. Four issues during the school year. Editor:

Hartley D. Snyder, College of Fine Arts, University of Arizona, Tucson.

ARKANSAS: *The Director*. Official publication of the Arkansas School Band and Orchestra Association. Five issues during the school year. Editor: J. Raymond Brandon, Senior High School, North Little Rock. May-June 1953: Vol. II, No. 5; 8 pp., 28 cm. Accepts: advertising, articles, pictures.

CALIFORNIA: *CMEA News*. Official publication of the California Music Educators Association. Seven issues during the school year. Editor: Alex H. Zimmerman, 4100 Normal Avenue, San Diego 3. May-June 1953: Vol. VI, No. 7; 8 pp., 28 cm. Accepts: advertising, articles.

COLORADO: *Colorado Music Educator*. Official publication of the Colorado Music Educators Association. Three issues during the school year. Editor: Lloyd S. Jensen, 805 Fairhurst, Sterling. October 1953: Vol. I, No. 1; 16 pp., 27 cm. Accepts: advertising, articles, pictures. Subscription: $1.00.

CONNECTICUT. *CMEA News*. Official publication of the Connecticut Music Educators Association. Editor: Joseph H. Soifer, 75 Milford Street, Hartford. January 1953: Vol. VI, No. 2; 4 pp., 30 cm. Accepts: news pertaining to the association.

DISTRICT OF COLUMBIA: *D. C. Music Educator*. Official publication of the District of Columbia Music Educators Association. Three issues during the school year. Editor: Louis Brown, 1448 Legate Road, N.W., Washington 12. December 1952: Vol. I, No. 1; 38 pp., 23 cm. Member Educational Press Association. Accepts: advertising, articles, pictures. Subscription: $1.00.

FLORIDA: *The School Director*. Official publication of the Vocal, Vocational, Bandmasters, Industrial Arts, Music Educators, Orchestra, School Board, and Trade and Industrial Education Associations. Published monthly, except July. Editor: Al Chiaramonte. Music education editor: Roy V. Wood, High School, Winter Haven. June 1953: Vol. VI, No. 11; 24 pp., 30 cm. Member Educational Press Association. Accepts: advertising, articles, pictures. Subscription: $2.00.

GEORGIA: *Georgia Music News*. Official publication of the Georgia Music Educators Association. Published quarterly. Managing editor: Polly Smith Evans, 551 Flat Shoals Ave., S.E., Atlanta. May 1953: Vol. XIII, No. 4; 16 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $.75.

IDAHO: *IMEA News*. Official publication of the Idaho Music Educators Association. Editor: Elwyn Schwartz, University of Idaho, Moscow. March 1953: Vol. I, No. 2; 8 pp., 23 cm. Accepts: advertising, news.

ILLINOIS: *The Illinois Music Educator*. Official publication of the Illinois Music Educators Association. Five issues during the school year. Editor: Thomas S. Richardson, 608 S. Mathews Street, Urbana. Managing editor: Robert L. Schaefer, 608 S. Mathews, Urbana. March-April 1953: Vol. XII, No. 4; 38 pp., 22 cm. Member Educational Press Association. Accepts: advertising, articles, pictures. Subscription: $1.50.

INDIANA: *The Indiana Musicator*. Official publication of the Indiana Music Educators Association. Five issues during the school year. Editor: Esther Ritz Collyer, Allen County

Courthouse, Fort Wayne. May-June 1953: Vol. VIII, No. 5; 38 pp., 23 cm.

IOWA: *The Iowa Music Educator.* Official publication of the Iowa Music Educators Association. Four issues during the school year. Editor: Dallas Tjaden, Ames High School, Ames. May 1953: Vol. VI, No. 4; 12 pp., 27 cm. Accepts: advertising, articles. Subscription: $1.00.

KANSAS: *The Kansas Music Review.* Official publication of the Kansas Music Educators Association. Six issues during the school year. Editor: J. J. Weigand, Kansas State Teachers College, Emporia. May 1953: Vol. XV, No. 3; 40 pp., 23 cm. Member Educational Press Association. Accepts: advertising, articles, pictures. Subscription: $1.00.

KENTUCKY: *Bluegrass Music News.* Official publication of the Kentucky Music Educators Association. Three issues during the school year. Editor: Claude E. Rose, Western Kentucky State College, Bowling Green. April 1953: Vol. IV, No. 3; 16 pp., 27 cm. Accepts: advertising, articles.

LOUISIANA: *The Louisiana Musician.* Official publication of the Louisiana Music Educators Association. Four issues during the school year. Editor: Joe G. Sheppard, 600 N. Vienna, Ruston. May 1953: Vol. XVI, No. 4; 12 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $1.00.

MARYLAND: *The Maryland Teacher.* Publication of the Maryland State Teachers Association which serves as the official magazine for the Maryland Music Educators Association.

MASSACHUSETTS: *Massachusetts Music News.* Official publication of the Massachusetts Music Educators Association. Five issues during the school year. Editor: Rodney F. May, 237 Ash St., Brockton. June 1953: Vol. I, No. 5; 30 pp., 23 cm. Accepts: advertising, articles.

MICHIGAN: *M.S.B.O.A. Journal.* Official publication of the Michigan School Band and Orchestra Association. Editor: Roger E. Jacobi, 3501 Administration Building, University of Michigan, Ann Arbor. February 1953: Vol. XIII, No. 2; 8 pp., 28 cm. Subscription: $3.00.

————: *M.S.V.A. Journal.* Official publication of the Michigan School Vocal Association. Editor: John A. Merrill, 3501 Administration Building, University of Michigan, Ann Arbor. May 1953: Vol. XI, No. 4; 10 pp., 26 cm. Accepts: advertising, articles, pictures. Subscription: $.50.

MINNESOTA: *Gopher Music Notes.* Official publication of the Minnesota Music Educators Association and the Minnesota Public School Music League. Four issues during the school year. Editor: Adolph White, Technical High School, St. Cloud. April 1953: Vol. IX, No. 4; 16 pp., 29 cm. Accepts: advertising, articles, pictures.

MISSISSIPPI: *Mississippi Notes.* Official publication of the Mississippi Music Educators Association. Four issues during the school year. Editor: William S. Haynie, Box 771, Jackson. May 1953: Vol. XI, No. 4; 22 pp., 23 cm. Accepts: advertising, articles, pictures. Subscription: $.50.

MISSOURI: *Missouri School Music.* Official publication of the Missouri Music Educators Association. Five issues during the school year. Editor: Leon Karel, State Teachers College, Kirksville. May 1953: Vol. VII, No.

5; 16 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $1.00.

NEBRASKA: *The Nebraska Music Educator*. Official publication of the Nebraska Music Educators Association. Four issues during the school year. Editor: Jack R. Snider, University of Nebraska, Lincoln. May 1953: Vol. X, No. 4; 12 pp., 28 cm. Accepts: advertising, articles, pictures.

NEVADA: *NMEA Bulletin*. Official publication of the Nevada Music Educators Association. Editor: William B. Clark, Northside Intermediate School, Reno.

NEW HAMPSHIRE: *The New Hampshire Music Educators Bulletin*. Official publication of the New Hampshire Music Educators Association. Four issues during the school year. Editor: Bernard Williams, 83 Opechee St., Laconia. October 1953: Vol. IV, No. 1; 12 pp., 22 cm. Accepts: news.

NEW JERSEY: *Official Bulletin*. Official publication of the Lepartment of Music of the New Jersey Education Association. Two issues (plus special issues) during the school year. Editor: Ernest J. Ersfeld, Nutley High School, Nutley. May 1953: Vol. XX, No. 8; 6 pp., 67 cm. (newspaper format). Accepts: advertising, articles, pictures.

NEW MEXICO: *The New Mexico Musician*. Editor: C. M. Stookey, Eastern New Mexico University, Portales. Accepts: advertising, articles.

NEW YORK: *School Music News*. Official publication of the New York State School Music Association. Published monthly, except July and August. Editor: Frederic Fay Swift, 379 Main Street, Oneonta. May 1953: Vol. XVI, No. 9; 24 pp., 27 cm. Member Educational Press Association. Accepts: advertising, articles, pictures. Subscription: $2.00.

NORTH CAROLINA: *North Carolina Music Educator*. Official publication of the North Carolina Music Educators Association. Five issues during the school year. Editor: Herbert Hazelman, 3206 Madison Avenue, Greensboro. May 1953: Vol. II, No. 3; 8 pp., 28 cm. Accepts: articles, news.

NORTH DAKOTA: *NDMEA Newsletter*. Official publication of the North Dakota Music Educators Association. Editor: H. O. Berquist, Public Schools, Fargo.

OHIO: *Triad*. Official publication of the Ohio Music Education Association. Issued monthly during the school year. Editor: Richard Schilling, Miami University, Oxford. October 1953: Vol. XXI, No. 1; 28 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $1.50.

OKLAHOMA: *Oklahoma School Music News*. Official publication of the Oklahoma Music Educators Association. Four issues during the school year. Editor: E. J. Schultz, Box 425, University of Oklahoma Faculty Exchange, Norman. April 1953: Vol. III, No. 4; 22 pp., 28 cm. Accepts: advertising, articles, pictures.

OREGON: *OMEA News*. Official publication of the Oregon Music Educators Association. Five issues during the school year. Editor: Raymond A.

Carl, 525 Belmont, Salem. May 1953: Vol. IV, No. 3; 4 pp., 28 cm. Accepts: advertising, articles, pictures, news. Subscription: $1.00.

PENNSYLVANIA: *PMEA News.* Official publication of the Pennsylvania Music Educators Association. Five issues during the school year. Editor: Ronald C. Teare, Box 152, Greenville. March 1953: Vol. XII, No. 4; 60 pp., 22 cm. Member Educational Press Association. Accepts: advertising, articles, pictures. Subscription: $1.50.

RHODE ISLAND: *Rimer.* Official publication of the Rhode Island Music Educators Association. Editor: Anna L. McInerney, 15 Frances Avenue, Auburn 7.

SOUTH CAROLINA: *The South Carolina Musician.* Official publication of the South Carolina Music Educators Association. Five issues during the school year. Editor: Harrison Elliot, Box 603, Inman. June 1953: Vol. V, No. 5; 16 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $1.00.

TENNESSEE: *The Tennessee Musician.* Official publication of the Tennessee Music Educators Association. Four issues during the school year. Editor: Arthur F. Klein, 1424 Shelton Ave., Nashville 6. May 1953: Vol. V, No. 4; 20 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription. $.50.

TEXAS: *Texas Music Educator.* Official publication of the Texas Music Educators Association. Nine issues during the school year. Editor: D. O. Wiley, Tech Box 4410, Lubbock. May 1953: Vol. XIII, No. 9; 10 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $2.00.

VIRGINIA: *VMEA Notes.* Official publication of the Virginia Music Educators Association. Six issues during the school year. Editor: Russell Williams, Granby High School, Norfolk, March 1953; Vol. V, No. 2; 12 pp., 28 cm. Accepts: advertising, articles, pictures. Subscription: $1.00.

WASHINGTON: *WMEA News.* Official publication of the Washington Music Educators Association. Four issues during the school year. Editor: Frederick C. Kintzer, 1013 K Street, Centralia. May 1953: Vol. IV, No. 4; 6 pp., 26 cm. Accepts: articles, news, pictures.

WEST VIRGINIA: *Notes a Tempo.* Official publication of the West Virginia Music Educators Association. Three issues during the school year. Editor and business manager: Walter L. Coplin, School of Music, West Virginia University, Morgantown. April 1953: Vol. II, No. 3; 12 pp., 28 cm. Accepts: advertising, articles, pictures.

WISCONSIN: *The Wisconsin School Musician.* Official publication of the Wisconsin School Music Association, Inc. Four issues during the school year. Editor: H. C. Wegner, 210 State Street, Madison. April 1953: Vol. XXIII, No. 4; 34 pp., 27 cm. Accepts: advertising, articles, pictures. Subscription: $1.00.

WYOMING: *WMEA News.* Official publication of the Wyoming Music Educators Association. Issued quarterly. Editor: Dale Buzzell, High School, Buffalo.

The Fulbright Program

ALTHOUGH the Fulbright Program has been in successful operation for several years and has provided incalculable benefits to American scholars and American scholarship in general, comparatively few applications for the various kinds of awards available have been received from music educators. How to account for this fact is difficult, since the prospect of a year's study or teaching abroad should be as appealing to us as to others. Perhaps insufficient information about the program has been disseminated among music educators.

The Department of State is responsible for the administration of the Fulbright Program and has established a secretariat for the purpose which serves as a liaison between four cooperating agencies in the United States (listed below). The latter, in turn, review applications and recommend candidates for selection. The MENC is cooperating officially with these agencies in the screening of applications. Application forms are obtainable only upon individual request to one of the agencies, each of which can also supply informational brochures regarding kinds of awards available, eligibility requirements, countries in which study or teaching may be done, and deadlines for applications.

The activities for which awards are available and the proper agency to which application should be made are as follows:

Applicants for: UNIVERSITY LECTURING, POST DOCTORAL RESEARCH, SPECIAL CATEGORIES, *apply to* Conference Board of Associated Research Councils, Committee on International Exchange of Persons, 2101 Constitution Avenue, N.W., Washington 25, D.C. (Applicants for awards in the SPECIAL CATEGORIES must have completed their formal training, and have been established in their professions for several years. In general, the term SPECIAL CATEGORIES applies to educational activities which may or may not be included in the university curriculum and for which an advanced degree is not necessarily a part of professional training.)

Applicants for: GRADUATE STUDY, *apply to* Institute of International Education, U. S. Student Program, 2 West 45th Street, New York 19, N. Y.

Applicants for: TEACHING IN *AMERICAN* ELEMENTARY OR SECONDARY SCHOOLS ABROAD, *apply to* American Council on Education, American Schools Service, 1785 Massachusetts Avenue, N.W., Washington 6, D.C.

Applicants for: TEACHING IN *NATIONAL* ELEMENTARY OR SECONDARY SCHOOLS ABROAD, *apply to* U. S. Office of Education, International Educational Programs Branch, Federal Security Agency, Washington 25, D. C.

Reviews

EDITED BY THEODORE F. NORMANN

Feeling and Form. A Theory of Art Developed from *Philosophy in a New Key*. By Susanne K. Langer. New York: Charles Scribner's Sons, 1953. xvi, 431 pp.; $7.00.

[N.B. The following brief review is published at this time in order that Mrs. Langer's tremendously significant work might be brought to the immediate attention of our readers. Professor Schoen is preparing a more detailed study which will appear in our next issue.—*Editor.*]

In this challenging and significant study Mrs. Langer constructs a theory of art based on the symbolic theory of music she developed in her well-known book *Philosophy in a New Key*. Her thesis is that the artist creates forms which are symbolic of human feeling, and she defines a symbol as "any device whereby we are enabled to make an abstraction."

Walter Pater called music the measure of the arts, claiming that music was "the typical of ideally consummate art," because "while in all other kinds of art it is possible to distinguish the matter from the form, and the understanding can always make this distinction, yet it is the constant effort of art to obliterate it." (*The Renaissance*, pp. 134–135.)

Mrs. Langer also places music at the head of the arts, her reason being that "the tonal structures we call 'music' bear a close logical similarity to the forms of human feeling . . . the greatness and brevity and eternal passing of everything vitally felt. Such is the pattern, or logical form, of sentience; and the pattern of music is that same form worked out in pure, measured sound and silence. Music is a tonal analogue of emotive life."

But music is not, however, the *language* of feeling, for its meaning is not limited by a vocabulary of words the meaning of which is fixed by convention. In music we are "always free to fill its subtle articulate forms with any meaning that fits them; that is, it may convey an idea of anything conceivable in its logical image." Nor does music have for its function the stimulation of feeling nor the expression of the feelings that beset the composer. The maker of music does not express his own emotional condition but rather his "imagination of feeling . . . what he *knows about* the so-called 'inner life'" and which may exceed his personal case. To the composer "music is a symbolic form . . . through which he may learn as well as utter ideas of human sensibility."

The musician and student of music will find in the chapters of this book in which Mrs. Langer presents her case for music a rich and rewarding reading. Her style is crisp and spirited, while her knowledge of the literature of music and musicians is wide in scope and deep in feeling and understanding.

MAX SCHOEN

An Objective Psychology of Music. By Robert W. Lundin. New York: The Ronald Press Company, 1953. ix, 303 pp.; $4.50.

The point of view from which this book is written is that of interbehaviorism, a theory of psychology which considers the psychological event as the interaction of the responding organism with a stimulus and gives both equal significance. The author's stated purpose is to show that musical behavior is subject to the same laws and principles as any other human activity. He further seeks to objectify the study of musical behavior and to strip it of "mentalistic" concepts.

The book is well organized, and the author writes with clarity and economy. A great deal of important research is cited, interpreted, and evaluated in terms of interbehavioristic theory. The definitions of technical terms and the explanations of psychological and physical phenomena are stated carefully, simply, and succinctly. This accomplishment is especially noteworthy and commendable when one considers the complexity of the subject at hand and the vague, obtuse treatment it sometimes receives.

Interbehavioristic theory is attributed via footnotes to J. R. Kantor, but is not described in any detail. A systematic statemen' of the theory would have strengthened the book and provided a more suitable frame of reference for understanding and evaluating the book as a whole.

A comparison of the material presented in this book and in three earlier books on the subject by Seashore, Mursell, and Schoen reveals, as one would anticipate, considerable repetition of subject matter. The clarity of the writing and the author's interpretation in the light of a psychological orientation different from that of the other authors make the book a valuable addition to the literature on the psychology of music.

Chapters on music in industry and on the therapeutic uses of music are unique to this book. The author reports several interesting studies on the effects of music on production in industry. Likewise, recent observations on the therapeutic uses of music are described. Due to the elementary state of research in both these areas, however, these chapters contain scant objective information. Reports on the therapeutic uses of music, for example, are only slightly more scientific than accounts appearing in folk lore and literature, several of which are reviewed here.

The chapters on the dimensions of tone (loudness, timbre, volume, and intensity) are short and to the point but complete. The author subscribes to a cultural theory of the development of melody and harmony and to a cultural theory of consonance and dissonance. He supports these theories convincingly by citing and interpreting a number of studies. He finds a motor theory of rhythm most acceptable, but cites a very limited amount of research to substantiate his position.

The chapter on the aesthetic response to music is short (eleven pages) and superficial. The author formulates a cultural theory modified from Hevner and Mueller after cutting out all mentalistic concepts. His theory is something less than startling. In fact, it is difficult to discern just what belongs to Hevner and Mueller from what belongs to Lundin. Although psychologists have long sought to take this subject out of the realm of philosophy, the results of philosophical thinking seem to remain much more imposing, revealing, and helpful. [See the review of Langer's *Feeling and Form*, Ed.] The chapters on the measurement of musical ability contain nothing but routine information with little new or original work cited. The author does, however, describe briefly his own recently constructed tests. They are five in number and called (a) interval discrimination, (b) melodic transposition, (c) mode discrimination, (d) melodic sequence, and (e) rhythmic sequence. They attempt to measure in objective fashion some elements of musical behavior not previously included in music tests. A more detailed description of the tests and more extensive data on their validity would have been appreciated here, even though already published elsewhere. The author takes an understandably dismal view of tests currently available and properly emphasizes the need for new research in this area.

A chapter on musical performance merely describes several research studies and briefly summarizes research in voice, piano, and violin. No attempt is made to interpret these studies in terms of interbehaviorism.

The author is quite consistent both theoretically and practically in treating most topics. One notable exception is in relation to practice. On page 6, in giving examples of the integrative aspects of musical action, he writes, "We practice hands alone, then together, then with the use of the pedals. . . . " This obviously exemplifies a mechanistic approach to learning. But on page 128, in a summary of evidence on learning and remembering music, an opposing view is taken. His third item in the summary reads, "Practicing 'hands together' is more

efficient from the beginning of study so long as it is within the range of the performer's ability".

In common with most associationists' theories of psychology Lundin's theory attributes as much as possible to learning and minimizes the importance of inheritance of musical talent or capacity. As a result, his attempts to account for precocious musical responses are unconvincing. To say that musical accomplishment is the result of hard work begs the question. Obviously hard work and a rich musical environment are essential for extraordinary musical success, but this fails to account satisfactorily for the many known instances of precocious musicality.

Lundin repeatedly takes Mursell, Schoen, and Seashore to task for their "mentalistic" points of view. While he undoubtedly performs a valuable service in emphasizing the lack of objective evidence for some of the conclusions of these psychologists, one doubts that he is justified in lambasting their work so thoroughly. It should be recognized that many differences in interpretation among these authors are largely due to differences in psychological orientation. Recent trends in the psychology of learning point toward positive emphasis on areas of agreement among learning theories and toward integration of the various theories. This trend would seem to be applicable and desirable in the psychology of music.

This is an important book and one that will be welcomed by musicians, music educators, and psychologists. One notable result of its appearance after an unduly long gap in the publication of books on the subject is to point up the paucity of research in the psychology of music during the past fifteen years. An amazingly small percentage of research cited has been reported since 1940. Within the limitations of available research the author has done a very adequate job of pointing toward the development of an objective psychology of music. It is hoped that his work will result in renewed interest, further research, and more rapid progress in this important area of knowledge.

CHARLES LEONHARD

Rhythm and Tempo: A Study in Music History. By Curt Sachs. New York: W. W. Norton and Co., 1953. 391 pp.; $6.75.

The essence of all musical expression is that of creating a feeling of organic movement. And that factor, above all else, which contributes to a work's organic unity, its total feeling, is rhythm. Rhythm is not a matter of divisions of time and accent but rather a relation of tensions—the preparation of new expectations by the resolution of former ones. It is rooted deeply in the framework of all living organisms. It permeates the very body of music—its tempo, melody, harmony, and form. Rhythm is, in fact, the most vital element in music.

In spite of its importance, however, the nature of rhythm is elusive of specific definition and shrouded in confusion. Under the guise of rhythmic training, children have been drilled in an inexorable strictness of timing by stamping, clapping, counting, and what not. Bands, orchestras, and choruses in the public schools—and occasionally in the professional world, too, for that matter—are often trained in distortions of musical style, in misconceptions which stem from a lack of comprehension as to the real meaning of rhythm and, as Dr. Sachs has pointed out, from the fact that "in the field of rhythm approaches and solutions change from country to country, from culture to culture. They change also from age to age within the same civilization; and we have no lesser difficulties in understanding and performing the almost unaccented polyphony of Palestrina's age within the tradition of our own historical area than in perceiving the 7/16 time of a Bulgarian folk song or the breath taking drum-beat combinations of South Africa."

The practicing musician has indeed long stood in need of a clear and definitive study of rhythm. In his latest book *Rhythm and Tempo,* Dr. Curt Sachs, distinguished musical scholar and author of a rather lengthy list of highly reputable historical studies, has provided us with a unique and thought provoking experience. To this task, Dr. Sachs brings an unusually perceptive critical faculty, a lucid and clear-cut style of writ-

ing, and a commanding and authoritative knowledge of art movements and styles. His subject is one of patent concern to every serious musician: composer, performer, scholar, and teacher.

Anyone who proposes to write about a topic as complicated as that treated by this book must of necessity define the nature of his subject matter. Dr. Sachs in a brief opening chapter entitled "Elementary Principles" eschews a broad definition of the term rhythm and states that he is concerned with "the steady, orderly recurrence of audible impressions only." These he classifies as divisive, additive, accentual, and numerical [further classifications, however, appear to be needed later on; heterorhythm (p. 88f.), polyrhythm (p. 40f), square (p. 58f), isorhythm (p. 180f.)]. Divisive rhythm appears whenever a third dimension (harmony) is added and "shows how the parts are meant to be disposed. It is regulative . . . a certain duration to be divided into equal parts." Additive rhythm is composed of longer and shorter units such as the 3/3/2 found so frequently in the old German chorale. "Additive rhythm shows how the parts are actually disposed. It is configurative." Numerical rhythm possesses three qualities: "1. a counted number of syllables, 2. absence of meter, 3. absence, scarcity or vagueness of accents." Dr. Sachs recognizes but two forms of accentual rhythm: stress given by intensity and that given by duration. Two concepts of tempo are defined, the first being the physiological tempo. "The heart has indeed provided the principal standard, from Ramis de Pareia's *Tractatus de musica* in 1482 all the way to Johann Joachim Quantz's *Versuch einer Anweisung die Flöte traversière zu spielen* (Berlin, 1752). The metronomical value of both these motor units, the stride and the heartbeat, lies between M.M. 60 and M.M. 80." The second concept of tempo is psychological. "It is less a tempo proper than a mood: the Italian word *adagio* misused for tempo, implies moderation and leisure; and *allegro* means, basically, gay and content."

Having thus attempted to clarify his position Dr. Sachs proceeds to discuss types of rhythm found in primitive tribes, in the Near, Middle, and Far East, in India, Ancient Israel, Greece, and Rome, and finally the development of rhythm and tempo in the so-called Western World. Two chapters are devoted to the Middle Ages, two to the Renaissance, and single chapters to the Baroque, Rococo, Romantic, and the present. With regard to the panoramic view thus spread before the reader, there may be some who might be inclined to question whether the author's camera is in proper focus. One-quarter of the book is devoted to a nonhistorical description of that area of the world which lies beyond the boundaries of Greece, Italy, Austria, Germany, France and England. The remainder deals with a historical treatment of the above countries (the United States receives a perfunctory comment or two) of which better than one-half treats of the period prior to 1550.

Be that as it may, *Rhythm and Tempo* does reveal in delightful detail the fertility and ingenuity of the human mind. Dr. Sachs' theory of the tidal ebb and flow of art movements as developed in *The Commonwealth of Art* is further elaborated in the present work. Composers will read with profit and interest the discussion of primitive and of Eastern music, for with the loosening of harmonic strictures of tonality, rhythm, in the sense that Dr. Sachs defines it, takes on new significance. The performer will discover rich sources of information particularly in the chapters on the Renaissance, Baroque, and Rococo. Indeed, it is the performing musician who, perhaps, will profit most for this work not only provides new insights into the complexities of musical interpretation but provides many a pertinent suggestion regarding errors all too frequently encountered in present day editions (see pp. 260-261, for example). Here the reader will find his clearest guide through the intricate maze of proportional signatures. He may possibly be somewhat surprised to discover that the concept of rubato, as Dr. Sachs defines it, is, in fact, very old indeed and by no means an invention of the nineteenth century. And it may be enlightening to realize that eighteenth century composers made a differentiation between "good" and "bad" notes; that Francis Couperin stated explicitly in 1717:

"Our writing differs from our performance. . . . For instance, we give dots to eighths in stepwise progression; and yet we write in equal values." Here, too, the student will discover brief but important suggestions on the treatment of embellishments, numerous references on tempi for the various dance forms, illuminating light upon rhythmical and metrical organization, and on many other matters all of which are of the utmost importance in defining musical style.

It is to be regretted in a book as ably written and as replete with useful and authoritative information as this that such scant treatment is given to the music of the nineteenth and twentieth centuries. Dr. Sachs covers the last 150 years in but fifty-five pages. Only passing mention is made of the work of psychologists in the field of rhythm and tempo, the whole being dismissed with the comment, "The human guinea pigs of our psychological laboratories, even if carefully shuffled, belong in our own time and in our own civilization and yield useful information only for this very limited section of the whole expanse in time and space in which the historian is interested." But is not the historian, in such a work as this, duty bound to recognize the results of respectable investigations in at least equal measure with those of ages past? Dr. Sachs takes exception to a foot-note which appears in Lussy's *Musical Expression,* but he quite fails to give recognition to the theories of this as well as other writers of the nineteenth and twentieth centuries who, in their own time and place, may have been as significant as Pajot, D'Affilar, Quantz, or Muffat in a more remote period.

The practical musician might be tempted to conclude that Dr. Sachs merely reflects the prevailing academic fashion of elevating obscurity into a major musical virtue. Exhuming some little known composer of an earlier century, peeling off layers of accumulated dust surrounding works which seldom if ever will be heard, all this seems to exert a strange fascination on modern scholars. Such an emphasis can lead to a degree of absorption which may exclude literateness in and even lead to antagonism to the music of our own century.

Dr. Sachs, however, is too wise and profound a scholar to be guilty of this charge. One is inclined, rather, to speculate whether his difficulty may not possibly stem from the deliberate limitations he placed upon himself in his definition of the term "rhythm." Throughout, his book deals almost exclusively with matters of accentual organization rather than with the larger aspects of the term. This, if adhered to strictly, cannot but lead to difficulties in discussing a period in which other aspects of rhythmic organization play so important a role.

Aside from these few observations, however, we would give hearty praise for this comprehensive and illuminating study. It is a work to which the conscientious musician will wish to refer time and time again.

THEODORE F. NORMANN

The Life and Music of Béla Bartók. By Halsey Stevens. New York: Oxford University Press, 1953. xvi, 366 pp.; $7.50.

In this volume Dr. Stevens presents the first serious and comprehensive study of the life and work of Béla Bartók. Previous books on Bartók are relatively sketchy and, for the most part, unavailable in the English language. Dr. Stevens' book is, moreover, a significant contribution to the general literature of musical analysis and criticism, and provides one of the best studies, in any language, of a twentieth-century composer.

Since, as Dr. Stevens states, the evolutionary line of Bartók's creative development is remarkably direct and consistent, analysis of Bartók's music should be correlated with a study of its origins and growth. In a brief preface Dr. Stevens sketches its background of Hungarian musical culture, which contained varied strands of autochthonous folk music, Turkish motifs, superimposed gypsy ornamentation, plainsong and Protestant hymnody, and, finally, "the Germanizing influence of Vienna." These incongruous elements awaited synthesis in the compositions of Bartók and Kodály, who were to create "an art music as Hungarian as its sources and yet international in its communication."

A third of the book is then devoted to a biographical study, including Bartók's education and the personal, nationalistic, and musical influences and events which contributed to his development as a composer. While this section is, as Dr. Stevens freely admits, neither definitive nor exhaustive, it is the most comprehensive Bartók biography so far published. Dr. Stevens has spared no effort to obtain authentic material, even to the extent of learning the Hungarian language well enough to read numerous untranslated journal articles and letters. He generously acknowledges the aid given him by Bartók's friends and students, and meticulously documents his information. He has been handicapped, however, by the lack of some material still unavailable, especially that which may later be obtained in Hungary.

By means of extensive correspondence and conversations with friends of Bartók, and by reading many of Bartók's own letters, from which he quotes at length, Dr. Stevens has largely compensated for his lack of personal acquaintance with Bartók. In some details, however, he has had to accept misconceptions, as, for example, the general impression that Bartók was "painfully shy." Bartók, at least in his later years, was not shy. He was fully aware of his value as a person, as pianist, composer, and scholar, and had no need to bolster his ego with either aggressiveness or false modesty. He was essentially an aristocrat, in spite of his democratic principles, and felt equally at ease with celebrities and with impecunious students. He was reserved, in the English manner, volunteering and asking for scarcely any personal information although his sympathy and helpfulness were boundless. He was forced to conserve his time and energy. His health was precarious. He had constantly to face the problem of trying to complete his life-work—that is, in his own estimation, his research in Hungarian folk music—in the uncertain span of years that remained to him. In his "spare time," as he called it, he composed. In these circumstances, he had no strength to waste on meaningless social diversions, which he avoided with the utmost courtesy. When he "retired to the remotest depths of some cavern," it was simply because he was physically exhausted by the intensity of his work.

Other instances might be cited of the limitations or inaccuracies Dr. Stevens was compelled to accept. It was hardly possible to remedy them at the time. When more complete files of correspondence become available, a more thorough psychological study of Bartók's personality can be made. Such a study will be invaluable in two respects: in itself, as the analysis of the development of a great and good man, and, specifically, for the light it will shed on the genesis of Bartók's creative genius and the growth of his musical style. It will require, however, careful discounting of the legends and myths which were fabricated, during the years of his retirement, by adoring students who compensated in this way for the breaking of their contact with "the master." Meanwhile, we must be grateful to Dr. Stevens for his sympathetic narrative and his meticulous collection of facts pertinent to Bartók's musical development.

The primary concern of the book is, however, the critical analysis of Bartók's music, a task for which Dr. Stevens, himself a distinguished composer and theorist, is eminently qualified. This principal section, of 200 pages, is arranged topically, dealing separately with the piano music, vocal music, chamber music, concertos, orchestral works, and dramatic music. Each topic is treated chronologically, in the order of composition of the works. The reader may thus, with the aid of cross-reference to the biographical study, trace the growth of Bartók's musical style and increase his understanding of the Bartók idiom in each type of composition.

The gradualness of Bartók's musical growth provides great encouragement to young composers, many of whom are unduly impatient to achieve originality. Bartók endured a long apprenticeship, during which he studied arduously the music of earlier and contemporary composers. He was willing to learn, by imitation during his youth and by constant experimentation in later years, the techniques and processes of composition. Up to the age of twenty-one, he

produced successively bad Brahms, good Liszt, and a mélange of other Germanic and pseudo-Hungarian musical elements. These immature works he later repudiated or suppressed, but enough remain to prove that his early style has little if any claim to distinction. Then, in 1902, came the catalyzing influence of the music of Richard Strauss, resulting in the composition and public performance of several major works. These, still, show little of the particular Bartók genius, and might have been written by other talented composers. Only in 1905, with the beginning of his serious research in folk music, did Bartók's own music find nourishment for its roots, quite fittingly, in its native Hungarian soil and commence its distinctive growth.

Dr. Stevens skilfully delineates the effects of these elements, and of later influences such as French Impressionism, on successive Bartók compositions. He deals most competently with the first major problem of analysis, that is, in what respects Bartók's work resembles that of other composers, from the times of Bach and Beethoven up to the present. He might have emphasized further the results of Bartók's scholarly researches in earlier music, especially of the Baroque period, which found their expression not in musicological treatises but in Bartók's actual compositions. Comparison of idioms and devices used by Bartók and, for instance, Frescobaldi, would be enlightening.

In the second and more difficult problem, that is, how Bartók differs from other composers, Dr. Stevens' analysis is less thorough. It is to be hoped that he will later publish further researches in those elements of design, particularly in melodic structure, and in the development of new forms, which make Bartók's work distinctive. In several passages Dr. Stevens approaches such a study. For example, on page 173, he says that Bartók's "motives, frequently of two or three notes only, are in a continuous state of regeneration. They grow organically; they proliferate; the evolutionary process is kinetic," and proceeds to show how this process operates in the *First Quartet*. But the discussion is incomplete; it needs further depth and expansion. Perhaps Dr. Stevens, who is so well equipped for the task, will apply the "kinetic process" in his own research, and produce a second volume of more penetrating analysis.

Certain specific problems of tonality and notation also need further consideration. For example, Dr. Stevens, on page 133, states that in the piano sonata, from measure 76 on, the upper line is in G sharp minor. This melody, however, actually has C sharp as its tonic, resembling C sharp major but with a "Lydian" raised fourth and a lowered seventh, as may be proved by referring to the "E major" opening of the sonata and other passages throughout the first movement. This "Lydian" C sharp major in the melody has a "Lydian" C major for accompaniment. The section is thus bitonal, but the melody and its accompaniment do not differ in mode.

Bartók's notation is by no means arbitrary, but is based on the principles of voice leading. For instance, in the *Second Burlesque* Bartók is not, as Dr. Stevens states on page 117, merely attempting "to avoid writing accidentals in the principal chords." The acciaccatura D sharp and A flat contract to the principal minor third E-G, A flat and C sharp expand to the perfect fifth G-D, etc. Most of the principal chords are simple, unaltered triads, needing no "accidentals." While the notation of the auxiliary notes may impede sight reading, its logic facilitates rapid learning.

Some space might well have been devoted to a critical evaluation of the various editions of Bartók's works. Even the original Hungarian editions contain regrettable misprints. Later editions, even those allegedly "revised by the composer," are cluttered with copyists' errors. If a new "authoritative edition" were printed, new errors might arise. A great service to Bartók's music could be rendered by critical examination of all extant manuscripts and editions, and careful listing of all apparent misprints and errors, with the reasons for considering them inaccurate. Thus posterity would be spared such confusion as we now have in regard to editions of Bach, Beethoven, and many other composers. Metronome markings are

similarly in need of correction. In the piano compositions, fingering added by unnamed editors (as, for instance, in the *Mikrokosmos*) should be criticized in the light of Bartók's pianistic principles.

Dr. Stevens illustrates his text with copious musical examples. Nine judiciously chosen photographs enhance the interest of the book. A chronological list of works, a list of recordings, and a Bartók bibliography are included. The volume as a whole represents exhaustive research, and will be an invaluable guide to the understanding of Bartók's music.

WILHELMINE CREEL DRIVER

Worlds of Music. By Cecil Smith. Philadelphia and New York: J. B. Lippincott Company, 1952. 328 pp.; $5.00.

How goes music in the United States—"serious" music, that is? Does it pay? And if by chance it pays, whom does it pay? Is it good? Could it be better? How are its artistic standards regulated? Again, by whom? How does one become a concert pianist? How does one make the Met? Can one earn a living as a composer or as a performer of symphonic music?

The economic, social, and artistic facts of our musical life are here authoritatively set forth by one who knows most of them well and who has taken reasonable pains to discover and describe the remainder. Gracefully written throughout, *Worlds of Music* considers the status of our art music in twelve chapters devoted to the following subjects: the New York concert managers; Columbia Artists Management, Inc.; the organized audience (a discussion of the activities of Community Concert Service, Inc. and Civic Concert Service, Inc.); the performer; New York; outside New York; opera; orchestras; the composer; the dance; electronics; education. Obviously, the first three chapters are closely related, so that practically one third of the book deals with the control which two large corporations (Columbia Artists Management, Inc. and National Concert and Artists Corporation) exert upon our musical life. These chapters should frighten all those who love music, even though the author himself (and this may testify either to his objectivity or to his incapacity for passion) seems reasonably content with the grotesque situation he so accurately describes—a situation in which ten New York managers "largely control the destinies—in this country, and often in the whole world—of all but a handful of the most prosperous American and European singers and instrumentalists."

The book should be required reading in all professional music schools, but it is equally suitable and, indeed, highly recommended for high school libraries, since it presents an easy-reading account of musical activities nowhere else available.

Music educators will find the last chapter of particular interest, for here we have an outsider's critique of our aims and accomplishments, as well as of the influence of the MENC itself. All in all, Mr. Smith is kinder to us in this book than he has been at other times. He first presents a generally favorable picture of American music education, pointing out that we have been engaging in "the world's first experiment in truly democratic music education," and that the MENC "has been the major force behind the movement that has blanketed the nation's schools with music in less than two generations."

Neither does he neglect our weaknesses, particularly those having to do with the nature of much of the teaching materials that pass for music in our schools and with the standards of taste and quality generally maintained. Unfortunately, he concludes his otherwise admirable discussion with an all-too-typical liberal-arts-college attack upon teachers colleges, using as a whipping boy an article from a recent issue of the *Music Educators Journal*, and seeming to be particularly incensed with the concept of the child-centered curriculum, which he somehow imagines to be at the root of everything evil in American music education. Now, if the case were actually as Mr. Smith presents it, I suppose that *I* should be as angry as Mr. Smith says *he* is. But, if he were really familiar with educational matters, Mr. Smith would know that philosophies of music education, as developed in an occasional teachers college and as occasionally parroted

in magazine articles by music teachers fresh from the seminar, are a far cry from what goes on in the grade and high schools. At least, such is the general complaint which educators bring against us and which, indeed, was made in the very article Mr. Smith takes such strenuous exception to. On the firing line, so to speak, music teachers teach *music* to the best of their ability with every possible regard for the general welfare of the *child*. For this they are often damned by educators and musicians alike, by educators for being too much concerned with music and by musicians for being too much concerned with education. The complaints have long since become tiresome, but we must continue to bear them, I presume, while we continue with the work of bringing music into the lives of American children.

Aside from these remarks, which, after all, constitute only a small and peripheral aspect of the book as a whole, Mr. Smith's frank and objective discussion deserves high praise. He has handled a difficult and touchy subject with greater fairness than one might think possible. Furthermore, he is interesting to read and his book will constitute the standard work on the subject for a good many years to come.

ALLEN P. BRITTON

The Child and His Music. By Hazel Gertrude Kinscella and Elizabeth M. Tierney. Lincoln, Neb.: The University Publishing Co., 1953. 158 pp.; $3.20.

The picture of a little girl and her own small violin is a charming initial illustration in *The Child and His Music*. Those readers who are familiar with the same authors' *Music in the Small School* will welcome this new handbook which is a happy application of the motto of the White House Conference for Childhood and Youth: "We will open the way for you to enjoy the arts and to use them for deepening your understanding of life."

How teachers may open the way to an appreciation and enjoyment of singing is discussed and illustrated in the first chapter, "The Singing Child." Words and melodies to more than forty songs, carefully selected for beauty and interest, are provided to help make singing a highly enjoyable activity in the classroom. The concise notes about the origins of familiar folk-songs and the stories about composers and about dramatic musical presentations are both informing and inspiring.

"Thoughtful listening is presented as an art" when Professors Kinscella and Tierney suggest means of securing significant listening experiences at home and at school. They discuss in adequate detail the contributions made by recordings, films, and other audio-visual aids to music in the classroom.

There are also (1) an excellent summary of the history of musical instruments, (2) a very good treatment of the development of the orchestra and (3) a consideration of instrumental instruction and performance in schools. The many beautiful pictorial illustrations of ancient and modern instruments will contribute toward making this book an effective tool for the teacher of music. Any reader will find his imagination stirred by the suggestions for the correlation of music with social studies, literature, and art. The closing chapter is very properly labeled "Music Fundamentals," but was aptly described by one of the reviewer's students as a "handy, dandy dictionary." *The Child and His Music* will help teachers lead children to enjoy the arts, to use them, and to make them a part of every-day living.

ALICE J. SORENSEN

The Language of Music. By Klaus Liepmann. New York: The Ronald Press Company, 1953. 376 pp.; $5.00.

The author developed the ideas appearing in *The Language of Music* for students in the School of Humanities and Social Studies at the Massachusetts Institute of Technology. He believes, as all progressive music educators believe, that everyone possesses, however latent it may be, some degree of musical feeling and that listening to music can be greatly enriched through the application of basic principles of musical understanding. The author presupposes an interest in music, but no previous musical training.

In developing his subject, Liepmann rejects the "historical" approach, which he believes is not sufficiently inclusive, and the "popular" type of course (hunting for a story) limits the field of music to but a comparatively few compositions. The plan selected here is termed "idiomatic." By this is meant "going to the music itself." The book is devoted to "the attempt to assist the reader to develop an intensified and more impressionable attitude toward music by becoming more familiar with the idiomatic use of the language." This approach is effected through the analysis of musical problems of various types.

The first half of *The Language of Music* is concerned with the basic elements of music: rhythm, melody, and harmony. The author delves into the subject in somewhat greater detail than is true of the usual orientation book on music. It is, as a consequence, more meaningful precisely for the reason that some cooperation and effort is expected upon the part of the student. The next section (approximately one-sixth of the book) is concerned with instruments and what they do. Mr. Liepmann, who has had extensive orchestral and chamber music experience in Europe, is very clearly on firm ground in this section. The acoustics, tone production, and special characteristics of each instrument are discussed in some detail. The final section pertains to matters of expressiveness, texture, form, and style.

Lest anyone imagine that *The Language of Music* is another fireside guide to be browsed through on a winter's evening, let it be pointed out with emphasis that the book is a solid, scholarly, compact, detailed, and thorough piece of writing. Although the author does not go far into any one of the areas under discussion, every inch of the distance is covered carefully. Mr. Liepmann says that the book "is designed for the music lover who, whether attending concerts or listening to broadcasts and recordings, desires a better understanding of what he hears." This sentence, like the title, might lead one to infer that the book has been written with an eye to easy popularity, but such popularity, I think, the book will never have. It will be of value only to those who have had some musical training and to those who approach it with adequate guidance, despite the author's claims to the contrary. The musical examples, for instance, would be completely beyond the reach of the uninitiated without intelligent assistance. This is a text which requires study.

There are a few minor errors and omissions. Although ties are found frequently in the musical examples, no explanation of the tie is given. The musical illustration *Veni Emmanuel* has one measure containing a wrong note and one measure omitted. A footnote on page 190 states that the fundamental is "almost impossible to produce and unsatisfactory as to tone quality on horns, trumpets, and trombones." The fundamental is, of course, not difficult on trombones and is quite satisfactory in tone quality for certain effects. Pictures of the orchestral instruments would mean more if players were also shown. In the mind of the layman the size of the instruments is closely related to its pitch—and rightly so.

The Language of Music is a text for serious college students who are interested in a thorough course in musical understanding. Any student who successfully passed a well taught course on the information contained in the book would, I have no doubt, become a more intelligent listener.

ARTHUR M. FRASER

A Song Approach to Music Reading. By Charles Leonhard. New York: Silver Burdett Co., 1953. x, 149 pp.; $2.00. A recording, *Songs We Like to Sing* (Silver Records SR 1), accompanies the text.

The author's premises are that anyone can learn to read music easily and well, and that one will enjoy music the more for being able to comprehend its notation. We are told in the preface that through the use of this book music reading can be largely self-taught, that students in high school or college classes can profit, that elementary school teachers will find reward, and that church choirs and other singing groups will find value in the procedures outlined.

Eighteen familiar songs are presented in Chapter One. The student's comprehension of notational symbols is intended to grow from a singing experience as well as a music-

al understanding of these and many other songs. Various aspects of notation in the songs are analyzed in the text. The song material is plentiful and of good quality, many of the songs having been selected from the publisher's basic series *New Music Horizons*.

This book is intended to be a supplementary text for class study. It aims to provide material for two semesters when used in combination with other instructional sources which would add experiences in playing, creating, and listening. For classes at college level meeting five hours a week, the author suggests that two of these hours might be devoted to the use of the materials covered in this book.

Dr. Leonhard introduces the subject of music reading with rote singing of familiar songs. By way of orientation numerous suggestions are made as to the things that should be observed in each song. The author then proceeds to scalic reading in the key of C, presentation of tonic, dominant, and sub-dominant chords in the most common keys, discussion of various rhythmic and metric patterns, major and minor modes, "chording" through the addition of chord roots to melodies, interval study, and finally reading in part arrangements. Interval experience is introduced as part of a chordal figure before proceeding to an independent study of intervals. The utilization of active listening—an "ear" approach—is one designed to build basic musicianship. The outline of material covered parallels in general that of the traditional first year of diatonic harmony.

The avowed objective of the text is to develop facility in reading vocal music, and as a consequence Dr. Leonhard limits his experiences almost entirely to vocal materials. Attempts at integration or correlation through student use of the piano keyboard, tuned bells, autoharp, recorders or other instruments are omitted. Exceptions are found when introducing the bass clef and chromatics. Here the author finds it helpful to refer to keyboard diagrams and, in the latter instance, to suggest rather briefly that the student explore the relationships of sharps and flats as exemplified on the piano keyboard.

In summary, points which the reader will find of interest in this text are: (1) an orientation to sight reading through the use of familiar material presented through the use of supplementary recordings, (2) limitation of the material used to keys involving three flats and two sharps, (3) some utilization of the piano keyboard as an aid in presenting the bass clef and chromatics, (4) introduction of interval study as part of a chordal form, (5) a discriminative selection of music materials for study purposes, (6) emphasis upon intelligent musical reading rather than perfunctory note reading, (7) suggestions for "chording" melodies, (8) easy and logical progression of new teaching problems. This reviewer believes that Dr. Leonhard might have utilized more fully a correlation with simple instruments and the piano keyboard, recognition and employment of all intervals found in major and minor chord forms, and the extension of "chording" as a systematic introduction to part singing. The secondary role which is given to rhythmic as opposed to pitch reading is one which will invite differences of opinion.

A recording of eighteen basic songs is an essential companion to the text. The quality of the record is good, although some listeners may hold reservations regarding the rapid vibrato of the baritone voice. Bands seven and eight on the record cover are reversed on the recording examined by the reviewer. The publishers, as usual, have presented an example of neat and artistic printing.

The author is to be commended for making a contribution to an area of music education which has been under criticism for many years; one which continues to be a subject of controversy.

ROBERT E. NYE

A Guide for the Improvement of the Teaching of General Music in the Schools of Arizona. Bulletin Number Two. Phoenix, Arizona: State Department of Public Instruction, 1951. xii, 154 pp.; no price given.

The new Arizona *Guide* was developed in summer workshops at the University of

Arizona and at the Arizona State College at Tempe. It was prepared for publication by the Music Revision Committee working under the direction of the State Curriculum Coordinating Committee. The work is divided into two parts entitled "Suggestions for Teaching Music" and "Resource Materials." Recommendation of definite methods or procedures is avoided, and teachers are asked to refer to the manuals that accompany the standard graded series. A number of sample experiences are described. Excellent suggestions are given for using the child's creative ability and his innate desire for active participation in musical activity.

The section devoted to resource materials comprises a number of unit plans for use in grades and in the junior high school. Each unit includes song materials and materials for rhythms and listening and associated reading. Of especial interest are the units on "The Circus," for the primary grades, and on "Music of the Americas" and "Our Musical Heritage from Other Countries," for the upper grades.

The *Guide* is organized according to topic and not according to grade or age level. Unfortunately, it lacks consistency in organization as well as in the use of outline form. Since the material for each grade level is scattered throughout the book, the busy teacher may not take the time to seek out the many things that would be of definite value to her. The carefully prepared index may alleviate this weakness to some extent. The materials and teaching aids found listed at the end should prove valuable. These include supplementary song books, materials for rhythms, books dealing with and containing material for choral speaking, books for children, books for teachers, supplementary recordings for primary grades, and films.

GENEVA NELSON

Briefly Noted

Music in American Schools. By James L. Mursell. New York: Silver Burdett Co., 1953. v, 312 pp.; $3.30.

This new edition consists of a reprint of the 1943 publication of the same title plus thirty-two pages of photographic illustrations of school music activities. These, for the most part, are happily selected, although one photograph of an instrumental demonstration will cause bandsmen to cringe at the playing positions exemplified by the students.

English Folk Songs from the Southern Appalachians. By Cecil Sharp. Edited by Maud Karpeles. London, New York, and Toronto: Oxford University Press, 1952. Two volumes. xxxvii, 840 pp.; $13.50.

The work of Cecil Sharp as the musical editor of *Songs of the West* (1905) and his subsequent *English Folk Songs from the Southern Appalachians* (1917, 1932) constitute major land-marks in the systematic collection of the wealth of folk songs in the United States. The passing years have dimmed neither the importance of the songs nor of the achievement. Except for the addition of a few editorial comments by Maud Karpeles, the present two volumes, "comprising two hundred and seventy-four songs and ballads with nine hundred sixty-eight tunes," are a reprint without alteration of the 1932 edition.

The NYSSMA Manual, 1953–54: The Classification Plan, Graded Music for Band, Orchestra, Choirs, and Vocal and Instrumental Solos. Hornell, N. Y.: The New York State School Music Association, 1953. 212 pp.; $1.50.

Revised regularly (previous editions appeared in 1942, 1946, 1948, 1950, and 1952), this comprehensive listing of school music materials is designed for competition-festival purposes. Graded according to six levels of difficulty, the selections listed represent a wide variety of tastes and reveal a most serious shortcoming in simple, well written music suitable for less experienced performers. This is particularly noticeable in the sections devoted to music for bands and wind instrument solos and ensembles. (Although not mentioned in the title, the manual does contain a graded list of music for small ensembles.)

Tribal Crafts of Uganda. By Margaret Trowell and K. P. Wachsmann. London, New York, and Toronto: Oxford University Press, 1953. xxi, 423 pp.; $9.00.

Those who saw the motion picture *King Solomon's Mines* will recall vividly the impressiveness of the sequence dealing with tribal ceremonies of the Uganda. Situated in an area in Central Africa providing contact with both northern and southern trade routes, the tribal region makes possible a richness of material culture unmatched by any other African group.

Of particular interest to music educators is the section of the book written by Dr. Wachsmann on the musical instruments of the Uganda. Here one finds in a compact 118 pages (including 42 pages of excellent illustrations) a picture of a culture "where music pervades almost every aspect of people's lives." Literally dozens of different instruments are described, including numerous forms of bowed and percussive instruments as well as a great variety of bells, flutes, trumpets, zithers, and lyres. The "general music" teacher of an inventive turn of mind will find in this section a wealth of information of the most stimulating kind.

Marching Bands. By Kenneth Hjalmervik and Richard C. Berg. New York: A. S. Barnes and Co., 1953. xv, 301 pp.; $3.75.

Another book has been added to the comparatively extensive literature on marching bands. This one has the advantage of being clear and explicit both in writing and in organization.

Band Guide. A professional magazine for band conductors. Vol. I, No. 1, August-September, 1953. 44 pp.; $2.00 per year for four issues, 50 cents per single copy. Editor and publisher: Roy Anderson. Editorial office: 166 West 48th St., New York 36, N.Y.

The first issue of *Band Guide* arrived too late for extended review. However, the new periodical promises to fulfill a real need and should be supported. It is our suggestion that all bandmasters subscribe immediately, not only for their own immediate benefit, but in order that the editor be given the opportunity to refine and develop the project to its full potential.

The magazine is not without certain initial weaknesses. For example, the distinction between what is frankly commercial and what is actually disinterested discussion sometimes loses its clarity; what is listed as an article on marching bands turns out to be an advertisement for a new book published by the same concern (Band Enterprises) responsible for *Band Guide*. Another weakness lies in the scope and content of the reviews of new music and methods. Only five pages are devoted to reviews, not nearly as much space as the title would lead one to believe. Although an indication of the relative difficulty of the new music discussed is included somewhere in many of the reviews, high school bandmasters will wish that one of the conventional grading symbols were included with the otherwise ample information given in the heading.

On the other hand, the reviews also point up what is the greatest strength of *Band Guide*, its obvious editorial emphasis on finding and performing interesting band music. The reviews are surprisingly objective. The editor apparently does not hesitate to call a spade a spade, and for this he is to be congratulated. Furthermore, most of the articles are devoted to specifically musical considerations; only one is of the "how to do it" variety. This division of emphasis should be welcomed by all bandmasters who think that music is at least as important as methodology, especially since there are numerous publications largely devoted to methodology already available. It might be added also that most of the articles are well written, interesting in subject matter, and the product of respected authorities in their special fields.

Quite a point is made in the masthead to the effect that only *bona fide* bandmasters and their professional allies will be welcomed as subscribers. Roy Anderson thus becomes the first editor in the history of magazine publishing known publicly to discourage possible senders-in of genuine money. (A.P.B.)

Education. Music Education Number, edited by Lloyd Frederick Sunderman. Vol. LXXIV, No. 1, September 1953. 64 pp.; 50 cents per copy ($4.00 per year for ten issues). The Palmer Co., publishers, 370 Atlantic Avenue, Boston 10, Massachusetts.

The September issue of *Education* is devoted almost entirely to music education. Since five of the nine articles on music were written by members of the Editorial Committee of the *Journal of Research in Music Education,* one finds a certain difficulty in giving proper praise without at the same time appearing immodest. Perhaps it will be appropriate to say that the issue meets our approval and that members of the profession as well as others will profit from reading it.

Members of our own editorial staff who are represented include Charles Leonhard, Neal Glenn, Theodore Normann, Lilla Belle Pitts, and Allen Britton. The remaining articles are by Helen Hefferman, Howard Hanson, Lillian Baldwin, and Lloyd Sunderman. Professor Sunderman has for some time been responsible for the music issues of *Education* and certainly deserves the gratitude of the music education profession for the time and effort involved. These issues serve an especially important purpose in bringing the viewpoints of our profession before the readership of *Education,* which constitutes a broader section of the educational world than is normally reached by our own professional publications. (A.P.B.)

THESES AVAILABLE ON MICROCARDS

THE University of Rochester Press now is publishing on microcards theses done at the Eastman School of Music. The 3″ by 5″ microcards contain complete bibliographic information, and in addition all cards have Dewey classification numbers in their upper left hand corners and Library of Congress classification numbers in their upper right hand corners. Furthermore, all cards bear a Library of Congress subject heading. The following titles may now be ordered by writing the Micropublication Service, Rush Rhees Library, Rochester 3, New York:

Robert Hargreaves, *The Teaching of Brass Instruments in School Music Supervisors' Courses* (Ph.D., 1941; 14 cards, $3.50); and Everett L. Timm, *Training Requirements for Musical Careers* (Ph.D., 1948; 10 cards, $2.50).

The following are in preparation:

Hugo D. Marple, *Contemporary Philosophies of Music Education* (Ph.D., 1949); and Frederick W. Westphal, *Music in Radio Broadcasting* (Ph.D., 1948).

A Note Regarding Editorial Policy

SINCE THE appearance of the first issue of the JOURNAL OF RESEARCH IN MUSIC EDUCATION a number of congratulatory letters have been received in the editorial office, while other kindly comments have come to various members of the editorial staff by word of mouth. At this time and place, the staff would like to acknowledge its deep appreciation for all expressions received. Producing the first issue was hard work for everyone concerned, and the welcome given it by music educators and others was more than enough recompense for the efforts involved.

Together with the commendations, moreover, a variety of important questions were raised in regard to the editorial policy as this policy was reflected in the types of articles published. Diverse as the actual phrasing of these questions was, they revealed in import three basic attitudes toward research and what research "really is," attitudes which are to some extent mutually exclusive, and in the light of which one or another of the articles printed may have had a doubtful place in a journal such as this. To put it very briefly indeed, the three attitudes may be characterized as those of (1) the practicing music educator, (2) the experimental psychologist, and (3) the musicologist. The first praised such articles as dealt with actual practice in school music but questioned the value of the historical studies. The second recommended that nothing be published except reports of "pure" (i.e. quantitative) research. The third thought little of the discussions of actual practice but expressed great satisfaction with some of the historical pieces.

There can be little doubt that the attitudes revealed in the comments received represent very well the attitudes to be found among members of the music education profession as a whole. Thus, the editorial staff feels a deep obligation to provide a further statement of the thinking which underlies its policies in selecting articles for publication.

Let it be admitted at the very beginning that the three basic attitudes described above can be found within the membership of the editorial staff itself. Hardly an article was accepted or rejected without certain reservations on someone's part. But, far from considering this fact a serious difficulty, it was felt to be a source of strength, for on this account the widest variety of viewpoints could be given recognition, with a hope that all viewpoints might finally be evaluated within the largest possible intellectual framework. Furthermore, there is nothing wrong with diversity of viewpoint in itself. But for holders of one viewpoint to deny others the right to be heard would be unwise for many reasons. Certainly, the editorial staff has no such intent, nor can it ever have, so long as it truly represents the profession of music education as a whole.

What then are the actual criteria by which articles are selected or rejected? Aside from simple and necessary requirements having to do with expression, logic, documentation, and other mechanics of writing, all articles submitted are evaluated in the light of three considerations. Framed as questions, these considerations are as follows:

1. *Is the article based upon serious and extended study of some aspect of music education?* In this question, the term research is defined by implication; that is, its reference is not limited to historical study, nor to scientific study, nor to the study of present-status, but

embraces all of these as well as any other form of study, so long as the work has been rigorously prosecuted and effectively reported. Furthermore, the term music education is to be taken in its widest sense. Music education involves, in addition to the teaching of music in elementary and secondary schools, the training of the teachers themselves. A sizable body of music educators consists of those who teach music in colleges to prospective and in-service teachers. Bachelor's, master's, and doctoral degree programs now offered in music education must be planned and directed by music educators. The range of interest of students and teachers in these programs is very wide, and, while the editorial staff must use a certain discrimination as regards subject matter in selecting articles for publication, neither can the staff restrict too narrowly the scope of subject matter presumably, potentially, or properly of interest to music educators. In the light of these considerations, the editorial staff has devised a rule of thumb whereby the term music education is considered to relate to music teaching of any kind as well as to other musical activities, such as directing community orchestras, bands, and choirs, in which the aims of the endeavors may be described as cultural rather than professional.

2. *Is the author of the article a member of the music education profession?* Let it be said immediately that the editorial staff welcomes contributions from those outside the profession providing the contributions deal with instruction in music. On the other hand, the staff feels obligated to give the most serious consideration to any research report, regardless of its subject, which is submitted by a member of the profession. The logic of this consists simply in the fact that what one music educator considers worthy of investigation is on that very account of possible interest to other music educators. Here again, there is no wish to delimit arbitrarily the presumed interests of our profession.

3. *Is the article based on an academic thesis or dissertation in music education?* It need not be, of course, but one of the principal aims of the Executive Committee of the MENC in establishing the JOURNAL OF RESEARCH IN MUSIC EDUCATION was to provide a vehicle for the publication of the best research produced each year by the many advanced students in various colleges and universities throughout the country. Therefore, the editorial staff gives special consideration to such articles, feeling that to publish as many as possible will serve many worthy purposes, not the least of which are to obviate much duplication of effort occasioned by the unavailability of most theses and dissertations and to aid in the establishment of qualitative standards in research by holding up the best to public scrutiny.

One additional point probably needs mentioning. The editorial staff can recommend articles for publication only after receiving them. Although diligent efforts are being made at all times to secure significant materials, the arduous task of doing the research, preparing the report, and submitting it for consideration remains always with the individual member of the profession. That individual is you. If you have recently completed a thesis, or if you have completed other studies which might be of general interest, prepare an article and send it to the editorial office. If you are engaged in the direction of thesis writing, encourage your students to submit articles. The JOURNAL OF RESEARCH IN MUSIC EDUCATION is your journal, and its value to the profession must depend on you.

A.P.B.

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